

AUTHOR INDEX

A

Abassi, M., 101
 Abawi, G. S., 195
 Abdul-Razik, A., 211, 214,
 217, 219, 220
 Absorbe, F. J., 445
 Adam, G., 406
 Adams, A. N., 83, 84, 89, 90,
 93, 94, 96, 98, 101
 Adams, P., 213, 225
 Adams, P. B., 170, 231
 Adams, T. H., 90
 Adams, W. Jr., 160
 Adler, J., 238, 243
 Adsuar, J., 70
 Ahrens, R. W., 169
 Ahuja, M. R., 146, 148, 158
 Aist, J. R., 240, 248
 Akai, S., 241
 Akerman, A. M., 242
 Albersheim, P., 326
 Aldrich, H. C., 158
 Ali, M. A., 193
 Ali, J. N., 175, 178
 Allard, R. W., 192
 Allen, D. J., 200
 Allen, P. J., 385, 386
 Allen, R. F., 245, 379, 380
 Allen, R. N., 242
 Alton, H., 211-14, 216, 217,
 219, 220, 222, 224, 226,
 229, 232
 Al-Raddad, A. M. M., 212,
 214, 218, 220, 222,
 229
 Altman, J., 70, 71, 78, 227
 Amin, K. S., 171
 Amom, B. O. E., 180
 Amosu, J. O., 201, 203
 Amundson, R. G., 265
 Anderson, A. S., 245, 249
 Anderson, F. K., 265
 Anderson, G., 365
 Anderson, J. L., 192
 Andrews, D. J., 167, 168
 Anilkumar, T. B., 192
 Arny, D. C., 169
 Ashagari, D., 248
 Asher, M. J. C., 321, 323
 Ashraf, M., 192
 Ashton, F. M., 70
 Ashworth, L. J. Jr., 212, 230
 Asuyama, H., 15
 Atherton, J. G., 317
 Augustin, W., 87
 Ausemus, E. R., 127
 Aviv, D., 157
 Avramesas, S., 90, 92

Ayers, W. A., 170
 Ayres-offie, E. N., 275
 Ayres, P. G., 318, 319
 Ayyar, V. R., 192

B

Backus, M. P., 35, 378
 Bacumer, K., 168
 Bagga, H. S., 129
 Baggett, J. R., 197
 Bahat, A., 290, 292
 Bainbridge, A., 70
 Bajaj, Y. P. S., 146
 Bajszar, G. Y., 156
 Baker, C. J., 241, 285, 291
 Baker, E. A., 241
 Baker, H. G., 381
 Baker, K. F., 73, 74, 177, 182,
 213, 222, 223, 225, 227-29,
 342, 347
 Baker, R., 219, 226
 Baker, W. K., 155
 Bakerman, W. A. P., 168
 Bald, J. G., 239, 241
 Ball, E. M., 84
 Ballantyne, B., 195
 Ballantyne, B. J., 195
 Ballard, J. C., 200, 202
 Ballester, J. F., 83, 101
 Balsillie, D., 440, 449
 Bancroft, J. B., 9
 Banitari, E. E., 101, 278, 413
 Barash, I., 314
 Barbara, D. J., 83, 96, 98, 101
 Barber, H. N., 249
 Barber, J. C., 363
 Bar-Joseph, M., 83, 88, 89, 94,
 96, 97, 100, 101
 Barker, A. W., 173, 342
 BARKER, K. R., 21-28; 429,
 432
 Barnes, R. A., 439, 442
 Barnett, A., 160
 Barnett, R. D., 248
 Barnett, U. W., 93
 Barr, M. E., 300, 303
 Barron, G. L., 240
 Barrus, M. F., 126
 Bartlett, A., 83, 84, 89, 90, 92
 Bartlett, B. R., 268
 Barton, D. W., 196, 197
 Barton, G. M., 439
 Bassett, C., 449
 Bassi, A. Jr., 245
 Bateman, D. F., 241, 309, 324,
 334, 335, 342
 Bateman, G. L., 285
 Bath, J. E., 403, 405, 406

Batson, W. E. Jr., 245
 Bauer, E., 363
 Bawden, F. C., 6, 12, 16
 Bay, C. F., 367
 Bayer, D. E., 70
 Bazan, R., 168, 180
 Beall, G., 170, 171
 Beaumont, C. H., 74
 Bedbrook, J., 158
 Bedbrook, J. R., 158
 Behki, R., 158
 Behki, R. M., 148
 Behnke, M., 159
 Behr, E. A., 448
 Beier, H., 83, 159
 Belcher, H. J., 361, 365
 Bell, D. K., 177
 Benedict, H. M., 260
 Benedict, W. G., 287, 289
 Benjamin, A., 211, 226, 227
 Bennett, J. H., 261
 Bennici, A., 154
 Benoit, L. F., 264
 Benson, D. M., 221, 222
 Berg, H. R., 156
 Berger, R. D., 73
 Bernal, J. D., 6
 Bernstein, L., 311
 Berrie, A. M., 69
 Berson, S. A., 84
 Bertrand, A. R., 62
 Best, R. J., 415
 Beste, C. E., 170
 Bever, W. M., 287, 288
 Bhatt, R. S., 382, 387
 Bhojwani, S. S., 146
 Bianchi, A., 249
 Bidney, D., 151-53
 Bidney, D. L., 147
 Bidwell, D., 87
 Bidwell, D. E., 83, 84, 89, 90,
 92
 Biffen, R. H., 126
 Bigelow, W. D., 220, 221
 Billett, E. E., 309, 384
 Binding, H., 156
 Bingham, E. T., 149
 Bird, J., 409
 Black, C. A., 342
 BLACK, L. M., 413
 Black, W., 129
 Blackman, V. H., 377, 378, 380
 Blair, R., 355, 363
 Blakeman, J. P., 241, 313
 Blakeslee, A. F., 127
 Blalock, T. E., 366
 Blanchette, R. A., 452
 Blevins, R. L., 167, 169
 Bliss, F. A., 195, 200, 202

460 AUTHOR INDEX

Blount, V. L., 192
 Boatman, S. G., 112
 Bocion, P. F., 160
 Bock, K. R., 76, 77
 Bockmann, H., 71, 79
 Boddy, B. J., 112
 Body, D. E., 260
 Boehm, E., 73
 Boerema, G. H., 299, 300
 Boerma, H. R., 178
 Boettger, M. A., 195
 Bollen, G. J., 73, 74, 213, 225
 Bollen, W. B., 70
 Bolstad, J., 177
 Bonfils, J., 101
 Bonete, J., 262
 Boomstra, A. G., 195
 Boone, D. M., 35, 129
 Boorsma, D. M., 90
 BOOSALIS, M. G., 167-87;
 169, 170, 172, 173, 176,
 182, 278
 Booth, C., 305
 Borland, J., 379
 Borum, D. E., 116
 Bossemecc, J. M., 101
 Boulton, M. I., 160
 Bouvier, J., 242
 Bové, J. M., 101
 Bowen, G. D., 313, 342
 Bowman, T., 310, 314
 Bowryer, J. W., 317
 Boyce, S. G., 359
 Boyd, H. W., 176, 177
 Boyd, S. R. J., 287
 Boyd, W. J. R., 276-79, 281
 Boyle, L. W., 176
 Bozarth, R. F., 83, 93, 94
 Bradley, R. H. E., 407, 414,
 419
 Bradshaw, J. J., 226
 Brandes, W., 70, 118-20
 Brantley, B. B., 202
 Brar, J. S., 199
 Brender, E. V., 361, 365, 366
 Brenneman, F., 160
 Bretstell, R. I. S., 146, 153, 159
 Brewbaker, J. L., 248
 Bridges, J. W., 90
 Briggs, D. E., 108
 Briggs, G. G., 107, 110, 111,
 118
 Brink, R. A., 35
 Brinkerhoff, L. A., 171, 176
 Briansky, R. H., 83, 101
 Broadbent, P., 227
 Brokenshire, T., 283, 284
 Bromilow, R. H., 107, 110,
 111
 Brönimann, A., 287
 Brooks, D. H., 169, 176
 Brooks, O. L., 179
 Brovchenko, M. I., 311, 316
 Brown, G. E., 71, 245, 249
 Brown, J. F., 244, 245, 249,
 289
 Brown, J. S., 284, 286
 Brown, M. B., 290, 292
 Brown, R. W., 343
 Browning, G., 76
 Browning, J. A., 42, 47
 Browning, R. M., 136
 Bruehl, G. W., 239, 243
 Bruening, G., 159
 Brutherford, K., 439
 Bruun, G. C. A., 115
 Büchel, K. H., 118-20
 Buechauer, H., 45, 120
 Buczacki, S. T., 212, 218, 302,
 303
 Buddenhagen, I. W., 171
 Bukovac, M. J., 242
 Bunce, H. W. F., 266, 268
 Burckard, J., 94, 97
 Burdsall, H. H. Jr., 356, 357
 Burke, D. W., 173, 193, 342
 Burnett, H. C., 83, 101
 Burnett, J. H., 309, 384
 Burns, E. E., 169
 Burr, T. J., 227
 Burrows, W. E., 169
 Burt, S. M., 93
 Busch, R. H., 277
 Bushnell, W. R., 247, 319
 Businger, J. A., 213
 Butler, E. J., 378, 379
 Byrdson, J. A., 213, 226
 C
 Caldwell, R. M., 244, 245, 249,
 275
 Callow, J. A., 309, 382
 Callow, M. E., 309
 Cambra, M., 83, 101
 Cameron, J. N., 242
 Cameron, J. W., 261
 Camp, R. R., 379
 Campbell, C. L., 70, 71, 78
 Campbell, G. S., 343
 Campbell, R. N., 317
 Cante, F., 101
 Carleton, M. A., 126
 Carlile, M. J., 238, 242
 Carlson, C. E., 265-67
 Carlson, P. S., 150, 156, 159
 Carmichael, J. W., 298
 Carmichael, L. E., 101
 Carr, R. I., 87, 93
 Carroll, L., 257
 Carroll, R. B., 171
 Carter, G. A., 120, 121
 Carter, M. V., 74, 75, 79, 275
 Carter, T. J. N., 93
 Carter, W., 335, 341, 407, 411
 Cartwright, D., 145
 Caruso, F. L., 145
 Carvalho, L. P., 195
 Cary, J. W., 343
 Casper, R., 83, 90, 93, 96, 101
 Catarino, F. M., 149, 153
 Cayley, G. R., 117
 Cereser, D., 45
 Chalfant, R. B., 174, 177
 Chambliss, O. L., 202
 Chang, V. V.-S., 404
 Chapman, H. D., 342-44
 Chapman, W. H., 248
 Chase, M., 89
 Chaudhary, M. R., 169
 Chaves, G. M., 195
 Chen, C., 321
 Chen, C. S., 89
 Chen, T. A., 89
 Chen, W. H., 150, 151
 Chen, Y., 211, 226-29
 Chessum, B. S., 93
 Chet, I., 211, 213, 217, 220,
 223-25, 231, 243
 Chi, C. C., 239, 242
 Chiang, H. C., 429
 Childress, S. A., 411, 412
 Chilton, M.-D., 137
 Chin, J. C., 147, 148
 Chou, C. K. S., 239
 Christophersen, J., 220-22
 Chudapongse, P., 442
 Cionini, P. G., 154
 Claffin, L. E., 101
 Clare, B. G., 275
 Clark, C. A., 241, 245, 313
 Clark, H. F., 161
 Clark, J., 109, 120
 CLARK, M. F., 83-106; 83,
 84, 89, 90, 93-98, 100, 101
 Clark, R. V., 278, 281, 284,
 285
 Clarke, A. E., 242
 Clarke, R. G., 101, 412
 Clarkson, D. T., 343
 Clements, H. F., 349
 Clifford, D. R., 109, 120
 Close, R., 64
 Close, R. C., 288
 Cochran, V. L., 170
 Cochrane, V. W., 170
 Cocking, E. C., 146, 149, 156
 Coe, D. M., 413
 Cohen, J., 160
 Cohen, S., 98, 410
 Cohen, Y., 243
 Cole, A. L. J., 300
 Colhoun, J., 285-87, 291, 343
 Colley, R. H., 380
 Collins, F. C., 170, 171
 Connors, I. L., 298
 Constabel, F., 148, 156
 Converse, R. H., 101
 Cook, M., 244, 245, 249

Cook, P. R., 156
 Cook, R. J., 73, 74, 169, 170, 175, 177, 178, 180, 182, 213, 223, 225, 228, 342, 343, 347
 Cooke, R., 309, 310, 318, 322, 324
 Cooke, R. C., 321-23
 Cooper, H. R., 90
 Cooper, R. M., 326
 Corbett, D. C. M., 170, 171
 Cornford, C. A., 445, 448, 453
 Costa, A. S., 409, 418
 Cother, E. J., 101
 Coughenour, M. B., 262
 Coughlan, S. J., 439, 442
 Cousen, S., 248
 Cousin, R., 196, 197
 Coutts, M. P., 440-42, 445, 451
 Coutts, R. H. A., 158
 Couture, L., 278, 280, 282
 Cowling, E. B., 78, 337, 338, 346, 361, 366, 386, 452
 Cox, R. S., 70
 Cox, R. W., 170, 171
 Coyne, D. P., 180, 195, 196
 Craft, W. J. Jr., 361, 365
 Craigie, J. H., 127
 Crisp, C. E., 107, 112, 113
 Cromroy, H. L., 413
 Crook, N. E., 89
 Crosier, D. C., 195
 Cross, D. P., 155
 Crosse, J. E., 314, 317
 Crowd, S. H., 107
 Crowley, N. C., 413, 414
 Crum, R. A., 200, 202
 Cunfer, B. M., 285, 290
 Cunningham, H. S., 71
 Cunningham, J. L., 71
 Currier, T. C., 137
 Currier, W. W., 448
 Cuthbert, F. P. Jr., 200, 202

D

Dabek, H. A., 407
 DaCosta, E. W. B., 441
 Daft, G. C., 171
 Dahiya, B. S., 199
 Dahmen, H., 115, 241, 246
 Dalchow, J., 101
 Daly, C. R., 317
 Daly, J. M., 133, 317, 322, 323
 D'Amato, F., 149, 154
 Daniel, J., 211, 214, 217, 219, 226
 Darley, E. F., 222-25, 230
 Daugherty, D. M., 412
 Davide, L. C., 108, 116
 Davies, J. C., 70
 Dawson, J. R., 213, 225
 Dawson, M. G., 169, 176

Daxi, R., 428
 Day, J. R., 241, 245, 249
 Day, M. F., 401, 415
 Day, P. R., 194, 357
 Dean, M., 263
 Dearden, J. C., 111
 Dearing, R. D., 156
 Deas, A. H. B., 109, 120
 deBarry, A., 249
 De Bokx, J. A., 101
 de Cormis, L., 262
 de Groot, W., 149
 de Jager, C. P., 200
 Delbos, R., 83, 93, 94, 101
 Delwiche, E. J., 198
 Demoulin, V., 297-99
 Denéchére, M., 101
 Denmark, J. R., 93
 Dennis, R. W. G., 300, 302
 DeRoo, H. C., 214-16
 Derrick, K. S., 83
 De Savigny, D., 99
 DeSilva, D. M., 418
 de Tempe, J., 276, 277
 Detienne, G., 83, 93, 94, 101
 de Vallavelle, C., 242
 De Vay, J. E., 212-14, 217, 219-23
 Deverall, B. J., 145, 448
 de Vieira, C., 195
 de Wildt, P. P. Q., 109
 deZeeuw, D. J., 200, 202
 Dharne, C. G., 302
 Dickerson, A. G., 384, 385
 Dickey, R. S., 314
 Dickinson, S., 238, 240, 241, 246
 Dickson, J. G., 278, 285, 288
 Dickson, M. H., 195
 Diehl, W. W., 379
 Diener, T. O., 13, 341, 345
 Dimond, A. G., 70
 Dinus, R. J., 354, 357-59, 361, 362
 Dobbs, C. G., 224
 Dobzhansky, T. G., 357
 Dodd, J. K., 262
 Dodman, R. L., 238
 Doi, Y., 15
 D'Oliveira, M., 32
 Doncaster, C. C., 240, 243
 Donovan, C. M., 159
 Doodson, J. K., 321-23
 Döring, U., 87
 Dorman, K. W., 363
 Dorr, I., 321
 Dounnik, B., 169, 170, 172, 173, 182
 DOUPNIK, B. JR., 267-87; 169, 172
 Douthit, L. B., 420
 Dow, K. P., 197
 Dow, R. L., 170

Dowler, C. C., 173, 174, 176, 177, 179
 Dowson, W. J., 31-33
 Drayton, F. L., 167
 Drechsler, C., 383, 385
 Drew, E. A., 320
 Drifhout, E., 193, 196
 Drinkwater, W. O., 170, 171
 Driscoll, C. J., 249
 Drucker, P., 64
 Drummond, M. H., 137
 Drysdale, R. B., 316, 317
 DUBIN, H. J., 41-49
 Dudits, D., 156
 Dudley, C. L., 196
 Dudley, R. K., 158
 Duff, A. D. S., 276-78, 281
 Duffus, J. E., 418
 Dukes, P. D., 200-3
 Duncan, H. J., 355, 363
 Duncan, L. W., 431, 432
 Dundas, B., 201, 202
 Dunetz, J., 83, 93, 94, 101
 Dunkle, L. D., 169
 Durbin, R. D., 321, 322, 324
 Dutrow, G. F., 353, 358, 362
 Dwinell, L. D., 355-57, 359, 360

E

Earhart, R. W., 278
 Earle, E. D., 157, 158, 160
 Earle, F. S., 356, 357
 Eastop, V., 401
 Eastop, V. F., 401, 403
 Eastop, V. V., 401
 Edelman, M., 157
 Edgar, R. S., 139
 EDGINGTON, L. V., 107-24; 107-12, 114-16, 118
 Edmondson, R., 107, 110, 111, 118
 Edwards, H. H., 322, 385, 386
 Effland, H., 79
 Ehrlich, H. G., 320
 Ehrlich, M. A., 320
 Ehwald, R., 311
 Ekins, R. P., 84
 Elad, Y., 211, 213, 214, 217, 219, 220, 224, 225, 231
 Eleuterius, L. N., 366
 ELLINGBOE, A. H., 125-43; 132-39, 245, 246, 319, 324
 Elliott, J. E. M., 198, 199
 Elliott, L. F., 170
 Ellis, J., 170
 Ellis, M. B., 303
 Ellis, T. L., 428
 Elmer, C. H., 407
 Elmagar, S., 405
 English, P. D., 326
 Engvall, E., 83, 87

Epstein, E., 342-44
 Ercolani, G. L., 314, 317
 Erdman, H., 437-39, 441, 442, 445
 Erickson, W. D., 361, 365
 Erwin, D. C., 116, 239, 242, 246
 Esau, K., 404
 Eshel, Y., 70
 Evans, L. V., 309
 Evans, P. K., 146, 149
 Even, S., 211, 217, 226
 Everson, J. P., 168, 180
 Ewing, E. E., 198
 Eyal, H., 243
 Eyal, Z., 284, 289, 290, 292

F
 Fajardo, T. C., 407
 Fankuchen, I., 6
 Faridis, A., 212, 218, 219
 Faria, F. S., 200, 202
 Farley, J. D., 73
 Farrell, G. M., 321-23
 Farrell, J., 220, 221
 Faulkner, G., 325
 Faulkner, M. J., 285, 286
 Fevali, M. A., 320
 Feiker, F. C., 311
 Fellows, H., 288
 Fennell, J. L., 201, 202
 Ferguson, M. W., 94
 Fernandez-Montes, J., 83, 101
 Ferranti, N. P., 171
 FERRIS, H., 427-36; 428-32, 434
 Fery, R. L., 199-203
 Fezer, K. D., 285, 288
 Filonow, A. B., 226
 Fincham, J. R. S., 155
 Finkel, Y., 211, 214, 217, 219, 226
 Finney, R. E., 248, 290
 Firman, I. D., 77
 Fisher, V. J., 192
 Fishler, G., 211, 217, 219, 224, 226, 228
 Flavell, R., 158
 Fleagle, R. G., 213
 Flegg, C. L., 93, 95, 97, 101
 Flemming, M., 325
 Flentje, N. T., 245, 246, 249
 Fletcher, J. T., 109, 116
 Fletcher, W. M., 70
 Flor, H. H., 128
 Fluh, R., 157
 Fogel, S., 243
 Fos, A., 101
 Foster, A. A., 364
 Foucault, B., 283, 287
 Fouilloux, G., 194
 Foze, M. J., 362, 366

Fraenkel, G. S., 238
 Franckowiak, J. D., 201, 203
 Frank, A., 441
 Franks, N., 227
 Frearson, E. M., 156
 Frederiksen, R. A., 174, 239
 Fritz, R., 117
 Fritzeimer, K. H., 441
 Froelich, R., 361
 Froelich, R. C., 360, 361, 367
 Fromme, F. D., 379
 Fry, P. R., 196
 Frye, W. W., 167, 169
 Frykholm, K. O., 442
 Fuchs, A., 116
 Fuchs, Y., 160
 Fullerton, R. A., 381
 Fulton, J. P., 415-18
 Fulton, R. W., 5
 Furtado, I. J. M., 78

G
 Gabriel, D. W., 139
 Gabrielson, R. L., 347
 Gallaher, R. N., 175, 178
 Galston, A. W., 160
 Galun, E., 157
 Gamborg, O. L., 148, 160
 Gamez, R., 415, 417
 Gams, W., 302
 Garber, R. H., 212-14, 217, 219-23
 Garcia-Jurado, O., 101
 Garden, F. T., 169
 Gardner, W. H., 343
 Garibaldi, A., 212, 218, 219, 231
 Garnsey, S. M., 83, 89, 94, 97, 100, 101
 Garraway, M. O., 321, 323
 Garren, K. H., 176
 Garrett, R. G., 403-5
 GARRETT, S. D., 29-34; 71, 223
 Gastonyi, M., 109, 120
 Gates, D. M., 214
 Gaunt, R. E., 309, 322, 384
 Gavilertwana, S., 245, 248
 Gay, J. L., 319, 320
 Geiger, R., 215
 Gelehrter, I., 290, 292
 Gella, R., 83, 101
 Gemmill, K. P., 160
 Gendle, P., 109, 120
 Geng, S., 269
 Gengenbach, B. G., 159
 Genter, C. F., 169
 Georgopoulos, S. D., 116
 Gera, A., 101, 160, 403, 404
 Gerber, N. N., 439, 442
 Gerlach, W., 158
 Gerlach, W. L., 158

Ghabrial, S. A., 90, 91
 Gheorghies, C., 287
 Giacinta, R., 112, 311
 Gibbe, J. N., 75-78, 449
 Gibney, F., 54
 Gibson, I. A. S., 73
 Gil, F., 319
 Gildow, F. E., 406
 Gilead, D., 231
 Giles, R. A., 198
 Gillet, S., 75
 Glaze, N. C., 173, 174, 176, 177, 179
 Gleba, Y. Y., 156, 157
 Goddard, B. V. D., 159
 Goddard, R. E., 355
 Gold, R. E., 379
 Gollifer, D. E., 407
 Gonsalves, D., 94, 97, 101
 Goodell, P. B., 434
 Goodman, R. M., 409
 Gordon, M. P., 137
 Gorham, J., 439, 442, 444
 Gorter, C. J., 70
 Gotlieb, A. R., 101
 Gough, F. J., 283
 Gough, K. H., 83, 94
 Goy, M. F., 243
 Gracen, V. E., 157, 158, 160
 Graham, T. A., 242
 Graham-Bryce, I. J., 110, 116
 Greany, F. J., 276
 Gredt, M., 110, 116, 117
 Green, C. D., 238, 243
 Green, C. E., 149, 159
 Green, G. J., 285, 288
 Green, H., 156
 Greenberger, A., 211-14, 216, 217, 219, 220, 222, 224, 226, 229, 232
 Greenham, C. G., 318
 Greenland, D. J., 180, 181
 Greenwood, A. D., 245, 313, 326
 Gressel, J., 160
 Gresshoff, P. M., 154
 Greuter, W., 297-99
 Grewal, J. S., 192
 Griesbach, R. J., 158
 GRIFFIN, G. D., 21-28
 GRIFFITHS, E., 69-82; 69, 75-78, 287, 289, 291
 Griffiths, W. A., 196
 Griggs, M. M., 357-59, 361
 Grigliatti, T. A., 155
 Grinstein, A., 211-14, 217, 219, 220, 222, 224, 226, 228, 232
 Gritton, E. T., 196
 GROGAN, R. G., 333-51; 101, 340, 348
 Grooshevoy, S. E., 231
 Grover, R. K., 310, 314

Gruen, H. E., 279
 Grummer, G., 70
 Gudmestad, N. C., 170
 Guesdon, J. L., 90, 92
 Gugeri, P., 83, 93, 101
 Gunn, D. L., 238
 Gunning, B. S. E., 320
 Gupta, V. P., 192
 Gutierrez, A. P., 428
 Guzman-N., J., 248

H

Haberlach, G. T., 159, 160
 Habgood, R. M., 248, 276
 Hackett, A. M., 108
 Haddad, N. L., 192
 Hadden, C. H., 169
 Hadlaczky, G., 156
 Hadlaczky, G. Y., 156
 Hadley, G., 239, 245
 Hafidi, B., 101
 Haliz, A., 192
 Hagedorn, D. J., 71, 195, 196, 405
 Haglund, W. A., 198, 347
 Hall, C., 112
 Hall, D. H., 177, 278
 Hall, D. M., 249
 Hall, T. J., 159
 Hallard, J., 194
 Halliday, M. I., 93
 Hamilton, P. B., 449
 Hamilton, R. I., 101
 Hammer, W. P., 266
 Hampson, S. E., 311
 Hampton, J. G., 276-79, 282, 286, 288
 Hampton, R. O., 192, 197
 Hancock, G., 377
 HANCOCK, J. G., 309-31; 311, 316, 318, 322-25, 384
 Hann, C. A., 289, 291
 Hansen, E. M., 239, 241, 245
 Hansen, F., 382
 Hanson, J. B., 343
 Hardcastle, T., 101
 Harding, A. J., 192
 Hardtke, M. A., 87, 93
 Hare, W. W., 198, 201, 203
 Harland, S. C., 197
 Harmon, D. L., 133
 Harmon, S. A., 176
 Harms, C. T., 147
 Harner, F., 265
 Harpaz, I., 410
 Harper, J. L., 225
 Harris, H., 156
 Harris, J. B., 74
 HARRIS, K. F., 391-426; 391, 401-7, 410-14, 419-21
 Harrison, B. D., 83, 89, 93, 101, 421

Harrison, G., 170, 173
 Harrison, K. A., 70
 Harrison, R. L., 169
 Harrower, K. M., 283
 Harshbarger, T. J., 365
 HART, J. H., 437-58; 437, 439, 441-43, 446, 448
 Hartill, W. F. T., 115
 Hartnett, J. P., 171
 Hasegawa, M., 441
 Haskins, F. A., 169
 Haslam, E., 438
 Hassan, A. A., 195
 Hassan, Z. M., 379
 Hathway, D. E., 439
 Hawker, J. S., 311, 316
 Hay, F. C., 97
 Haydu, Z., 156
 Hayes, E. M., 264
 Hayes, H. K., 127
 Haynes, D. L., 428
 Hayslip, N. C., 70
 Hayward, C., 156
 Hazelbauer, G. L., 242, 243
 Headley, J. C., 430
 Heagle, A. S., 244, 245, 248, 260-62
 Heale, J. B., 239
 Heath, M. C., 244, 245, 247, 248, 317, 319
 Heath, R. L., 335
 Heck, W. W., 260-62
 Hedcock, G. G., 259, 355, 356
 Heggestad, H. E., 261
 Heinz, D. J., 150, 151
 Heitfuss, R., 70
 Helgeson, J. P., 159, 160
 Hellmers, E., 32
 Hemingway, R. W., 439
 Henis, Y., 223, 243
 Hennebert, G. L., 297
 Henry, B. W., 364
 Henry, D. G., 417
 Hensel, H., 220-22
 Heringa, R. J., 197
 Hervey, G. E. R., 70
 Hewett, P. D., 283, 285
 Hibino, H., 410
 Hickman, C. J., 71, 238-40, 242, 247
 Hide, G. A., 117
 Hielpko, P., 297-99
 Highley, T. L., 446
 Higinbotham, N., 311, 312, 322, 325, 326
 Hildebrand, D. C., 243, 313
 Hill, G. R. Jr., 260
 Hill, H. D., 92
 Hill, S. A., 83
 Hille Ris Lambers, D., 401
 Hillis, W. E., 438-41, 443, 446, 448, 451
 Hilty, J. W., 169

Hilu, H. M., 287, 288
 Himelick, E. B., 300
 Hinch, J. M., 242
 Hinson, W. H., 224
 Hisada, Y., 117
 Hitchcock, A. S., 382
 Hitchcock, L. A., 300
 Ho, H. H., 239, 240, 242
 Hobbs, H. A., 416
 Hodges, L. R., 403
 Hoefer, L. L., 404
 Hoffman, A., 211, 217, 226
 Hoffman, F., 156, 157
 Hoffmann, G. M., 194, 285
 Høgdaal, B., 266
 Hoitnik, H. A. J., 223, 225
 Holder, A. A., 157
 Holland, A. A., 239, 242
 Holland, J., 227
 Holliday, M. J., 159
 Hollies, M. A., 76
 Holligan, P. M., 321
 Hollis, C. A., 354, 355, 361, 362, 366
 Holloway, P. J., 241
 Holmes, L. D., 173, 342
 Holmes, S. J. L., 285-87, 291
 Honda, Y., 146
 Hood, A. E. M., 169
 Hooker, A. L., 246, 248
 Hooper, G. R., 405, 406
 Hopkins, J. C., 32
 Hora, T. S., 226
 HORNE, C. W., 51-67
 Horowitz, M., 211, 213, 216, 217, 226, 227
 Horrocks, J. S., 172
 Horsfall, J. G., 69, 70, 78, 337, 338, 346
 Hortenstein, C. C., 70
 Horton, J. C., 326
 Horvath, G., 156
 Hosford, R. M. Jr., 277-79, 281
 Housley, T. L., 112
 Houston, B. R., 279, 292
 Howard, H. W., 155
 Howard, R. J., 278-81
 Howell, S. H., 158
 Howitt, R., 269
 Hruschka, J., 243
 Hsu, S., 314
 Hubbeling, N., 194
 Hubbes, M., 450
 Huber, D. M., 173, 177, 342, 343
 Huffman, M. D., 284
 Hughes, S. J., 297, 299
 Hughes, W. A., 407
 Huguelet, J. E., 170
 HUISMAN, O. C., 309-31
 Huldt, G., 87
 Hull, R., 406
 Hunter, J. E., 195

Hurley, L. V., 149
 Husain, S. A., 71
 Hussey, R. S., 175, 176, 178
 Huttner, K. M., 158

I

Ibrahim, I. A., 70
 Ido, S. B., 343
 Iley, J. R., 70
 Inaba, T., 321, 322
 Ingham, J. L., 440, 442, 445,
 447, 448, 453
 Ingram, D. S., 146, 153, 159
 Innes, N. L., 196
 Inoue, T., 440, 441, 451
 Irzykiewicz, H., 415
 Ishida, N., 241
 Ishii, T., 15
 Ishikura, N., 439
 Ishimizu, T., 413
 Ishizaki, H., 241, 249
 Ismail, M. N. B., 176
 Israel, G. W., 265
 Israel, H. W., 248
 Iyer, R. R., 192
 Izhar, S., 154

J

Jackson, G. V. H., 407
 Jackson, J. A., 455
 Jackson, R. D., 343
 Jacobs, M., 149
 Jacobsen, E., 149
 Jacobsohn, R., 211, 214, 216,
 217, 219, 220, 226, 229
 Jacobson, L., 321
 Jacques, K., 109
 Jafapour, B., 101
 Jaksch, J., 269
 Jaksch, J. A., 269
 James, W. C., 349, 427, 433
 Janes, B. E., 170, 171
 Jaworski, C. A., 179
 Jellum, M. D., 175, 178
 Jenkins, A. D., 343
 Jensen, N. F., 249
 Jewell, F. F., 366
 Jimenez-G., E., 46, 47
 Johnson, A. W., 173, 174, 176,
 177, 179
 Johnson, D. A., 248
 Johnson, K. W., 196
 Johnson, L. E. B., 247
 Johnson, R., 131, 247
 Johnson, R. A., 213, 225
 Johnson, T., 284
 Johnston, H. W., 172
 Johnston, M., 107, 110, 111,
 118
 Jolivet, E., 288, 290
 Jones, D. G., 275, 285, 288

Jones, F. R., 383, 385
 Jones, J., 158
 Jones, J. P., 170, 171, 355, 364,
 367
 Jones, M. G. K., 320
 Jones, N. O., 420
 Jones, P., 318, 319
 Jones, S. G., 378, 379
 Joo, F., 149, 157
 Jordan, V. W. L., 275
 Jorgensen, E., 439-41, 449,
 450
 Jorgensen, H., 192
 Josepovits, G., 109, 120
 Joshi, A. B., 191
 Juarez, J., 83, 101
 Juniper, B. E., 241, 249
 Jurale, J. B., 326

K

Kaatz, D. M., 149
 Kabbage, K., 101
 Kais, A. G., 356, 357, 360
 Kajita, S., 146
 Kajiwara, T., 321, 322
 Kantz, J. G., 170, 243
 Kao, K. N., 154, 156, 160
 Karstensen, R., 266
 Kartha, K. K., 148
 Kaspers, H., 118-20
 Kassam, A. H., 167, 168
 KATAN, J., 211-36; 70,
 211-17, 219, 220, 222-32
 Kato, T., 117
 Katsura, K., 242
 Katz, G., 261
 Kavanagh, T., 70
 Kawachi, A., 90
 Kawase, Y., 117
 Keen, N. T., 116, 201, 319,
 326, 440, 445, 447, 448,
 453
 Kelley, W. D., 109, 355, 364,
 367
 Kellogg, A. W., 284, 286
 Kelman, A., 171, 175, 178,
 180, 243, 346
 Kendrick, J. B. Jr., 63
 Kendrick, W. B., 298
 Kennedy, B. W., 71
 Kennedy, J. S., 401
 Kenneth, R., 280
 Kepler, J. A., 449
 Keveny, M., 260
 Khalil-Allah, A. M., 200, 202
 Khan, T. N., 276-79, 281
 Khe, K. L., 242, 247
 Khodolova, V. P., 311
 Khush, G. S., 154
 Kim, K. S., 420
 Kim, S. H., 243
 Kim, S. K., 248

Kimland, B., 439
 Kimmings, W. C., 325
 Kindl, H., 440, 441
 King, E., 427
 King, P. J., 146
 Kinloch, R. A., 435
 Kiraly, Z., 323
 Kirkpatrick, J. W., 156
 Kiselev, A. I., 198
 Kishinevsky, B., 101
 Kitchen, H. B., 342, 343
 Klapproth, M. A., 361
 Klarman, W. L., 159
 Kleinhempe, H., 87
 Kleinhofs, A., 158
 Klinger, H. P., 156
 Klingler, J., 240
 Kliśiewicz, J. M., 314
 Kloft, E. S., 413
 Kloft, W. J., 413
 Kloots, J. M., 101
 Knavel, D. E., 170, 198
 Kniep, H., 127
 Knight, H. A., 353, 358, 359,
 362
 Koch, E. J., 261
 Koch, L. W., 227
 Kochman, J. K., 244, 245, 249
 Koenig, R., 83, 88, 90, 91, 93,
 94, 101
 Koenigs, J. W., 364
 Kohn, K. A., 149
 Kohn, L. M., 303, 304, 306
 Kojima, M., 101
 Kolattukudy, P. E., 241
 Komor, E., 312
 Koncz, C. S., 156
 Korf, R. P., 306
 Korobil, I. A., 170
 Korohoda, J., 158
 Korpraditskul, P., 90, 93, 96
 Kosuge, T., 309, 314, 323
 Kowallick, D., 311
 Koyama, K., 411
 Kraft, J. M., 198
 Krämer, W., 118-20
 Kraus, J. F., 355, 362, 363,
 366
 Kraus, P., 120
 Krause, R. A., 303
 Kreutzer, W. A., 347
 Krücka, L. J., 93
 Krishnamurthi, M., 150, 151
 Kruger, J., 194, 285
 Krumbiegel, G., 157
 Krupinsky, J. M., 289
 Kruswysk, C. J., 313
 Kuan, T. L., 239, 242
 Kuć, J., 145, 241, 448
 Kuć, J. A., 448
 Kuhlman, E. G., 367
 Kuhn, C. W., 175, 178, 202
 Kunkel, L. O., 15
 Kunoh, H., 241, 248, 249

Kursanov, A. L., 311, 316
 Kurtzweil, C., 127

L

Laborda, F., 318
 Lacey, M. S., 31, 32
 Lacozedieux, J., 283, 287
 Lacy, G. H., 137
 La Farge, T., 362, 366
 Lai, M., 71
 Lal, S. B., 192
 Lamb, H., 356-58, 364
 Lamberton, J. A., 249
 Landgren, C. R., 153
 Langcake, P., 145, 439-41, 445,
 446, 448, 453, 454
 Langdon, O. G., 363
 Langenbach, R. J., 317
 Lanham, C. A., 275
 Lapierre, H., 101
 Larcher, W., 220-22
 Lariois, J. F., 181
 Larsen, P. O., 146
 Larson, A. D., 412
 Larson, W. E., 169
 Last, F. T., 213, 225
 LAURENCE, J. A., 257-70;
 258
 Laurenroth, W. K., 262
 Laville, E., 115
 Lawrence, G. J., 129
 Lazar, G., 149, 156, 157
 Leakey, C. L. A., 194
 Leary, J. V., 137
 Leath, K. T., 245
 Le Baron, H. M., 115
 LEBEN, C., 35-40; 171, 243
 Ledger, M., 73
 Ledingham, G. A., 385
 Ledingham, R. J., 172
 Lee, J. J., 262
 Lee, R. F., 83, 101
 Lee, S. T., 283
 Lee, T. T., 442, 444
 Lefebvre, C. L., 202
 Legge, A. H., 264, 265
 Leggett, M., 304
 Lehtonen, O.-P., 87
 Lene, D., 167
 Lent, J. M., 170, 171
 Leonard, K. J., 276
 Leroux, P., 110, 116, 117
 Lesemann, D. E., 83, 90, 93,
 94, 96, 101
 Lesley, S. M., 148
 Leung, S., 269
 Levi, M., 211, 214, 216, 217,
 219, 220, 226, 229
 Levine, M. N., 126, 357
 Levitt, J., 335, 337
 Lewis, B. G., 241, 242, 245,
 249
 Lewis, C. E., 365

Lewis, D., 309, 318
 Lewis, D. H., 309, 321
 Lewis, J. A., 170, 226
 Lewis, R. A., 262
 Leworthy, D. P., 145
 Lielausis, I., 139
 Liese, W., 386
 Lifshitz, R., 223, 224
 Lim, W. L., 405
 Lin, J. D., 197
 Lin, T. S., 241
 Linde, F. V., 364
 Lindgren, R. M., 359, 361
 Lindgren, M. F., 169
 Lindstedt, G., 439, 441
 Line, R. F., 248
 Ling, I. T., 382
 Ling, K. C., 180
 Lingappa, Y., 222
 Link, G. K. K., 334-38, 346,
 347
 Link, K. P., 127
 Linkzhevski, I. A., 297-99
 Linn, M. B., 116
 Linzon, S. N., 264
 Lippe, P. E., 239, 243
 Lister, C. A., 407
 Lister, R. M., 10, 88, 93, 96, 101
 Littlefield, L. J., 248, 379
 Littrell, R. H., 174
 Litzenberger, H. S., 135
 Liu, M. C., 150, 151
 Livingston, J. E., 70
 Livingston, R. S., 161
 Livne, A., 322
 Llacer, G., 83, 101
 Lockwood, J. L., 73, 226
 Loebenstein, G., 94, 97, 101,
 160, 403, 404
 Loegering, W. Q., 133, 357
 Loman, A. A., 442, 443, 445,
 447, 449
 Long, W. H., 355
 Look, M., 107, 112, 113
 Loomis, R. S., 311
 Lopez, H., 192
 Lopez, M. M., 101
 Lopez-Rosa, J. H., 375, 385,
 386
 Lorbeer, J. W., 171, 241, 245,
 313
 Lorz, H., 147
 Luisoni, E., 83
 Luke, H. H., 136, 248
 Lumsden, R. D., 170, 223, 226
 Lund, D., 220
 Lund, S., 285
 Lundqvist, U., 249
 Lutey, R. W., 285, 288
 Luttge, U., 311, 312, 322, 325,
 326
 LUTTRELL, E. S., 373-89;
 373, 374, 376-78, 380, 384,
 386, 387

Lyall, L. H., 197
 Lyr, H., 443, 445

M

Maat, D. Z., 101
 Macayden, A., 212, 214, 215
 Machacek, J. E., 276
 Machado, P. F. R., 194
 Machacek, J. E., 285
 MacKenzie, D. L., 427
 Mackie, W. W., 200-2
 Macko, V., 238
 MacLean, D. C., 261, 262
 MacLeod, J. A., 172
 Maggenti, A. R., 420
 Maheshwari, S. C., 158
 Maher, Y., 211, 214-16
 Mai, W. F., 72
 Makela, K., 276
 Malek, R. B., 22, 25
 Malhotra, K., 158
 Maliga, P., 149, 157
 Malik, M. A. S., 213
 Malminson, M., 89, 97
 Malmberg, R. L., 158
 Malowany, S. N., 227
 Mandel, B., 95
 Mandl, R. H., 260, 263
 Manners, J. G., 309, 321-23,
 384
 Manners, J. M., 320
 Manocha, M. S., 319
 Mantle, P. G., 384, 385
 Maramorosch, K., 391, 401,
 409
 Marchesi, G., 249
 Marco, S., 98
 Marcs, D. J., 248
 Maretzki, A., 150, 151
 Marks, G. C., 239, 242
 Marks, V., 90
 Marshall, D. S., 241, 245,
 246
 Marte, M., 320
 Martelli, G. P., 83
 Martin, J. T., 241, 249
 Martin, R. A., 113, 114, 118
 Martin, T. J., 132, 134
 Martinson, C. A., 241
 Marx, G. A., 198
 Mason, D. L., 378
 Matern, U., 151, 153
 Mathews, P., 197
 Mathre, D. E., 108
 Matsu, C., 146
 Matthews, D., 276, 279
 Matthews, F. R., 357, 359, 360,
 367
 Matthews, R. E. F., 341, 345
 Matus, A. I., 249
 Maule, A. J., 160

Maury, Y., 101
 Maxwell, D. P., 318
 May, Y. Y., 407
 Mayama, S., 317
 Mayo, G. M. E., 129, 135
 McCalla, T. M., 169
 McCarthy, W. V., 439, 454
 McClintock, J. A., 414
 McClure, J. P., 353, 358, 362
 McCune, D. C., 258, 260, 262, 263
 McDonald, W. C., 277
 McDonough, J., 312
 McDadden, E. S., 127
 McGauley, B., 450
 McGree, E. E. M., 321
 McGuire, D. C., 192
 McGuire, J. M., 420
 McIntosh, R. A., 195
 McIntyre, J. L., 333, 341
 McKay, H. C., 173
 McKeen, W. E., 71
 McKenry, M. V., 431, 432
 McKnight, T. D., 158
 McLaughlin, M. R., 93
 McLean, D. L., 403
 McNabola, S. S., 317, 319
 McNeill, J., 298
 McVaugh, R., 297-99
 Mcagher, R. B., 158
 Mee, G. W. F., 150
 Meggit, W. F., 72, 113
 Meikle, R. D., 297-99
 MEINERS, J. P., 189-209; 193-96
 Meiser, W., 118-20
 Melchers, G., 152, 153, 157
 Melville, S. C., 275
 Menczel, L., 149, 157
 Mendgen, K., 101, 319, 320
 Mercer, P. C., 245, 313, 326
 Merlo, D. J., 137
 Merriman, P. P., 170, 173
 Meshcheryakov, A. B., 311
 Metz, S. G., 276, 281
 Meuhlbauer, F. J., 192
 Mexal, J. G., 355, 364, 367
 Milholland, R. D., 116
 Millar, R. L., 318
 Millard, W. A., 276, 281
 Miller, C. J., 260
 Miller, D. E., 173, 342
 Miller, D. G., 59
 Miller, J. H., 375
 Miller, P. M., 214-16
 Miller, P. R., 264
 Miller, T., 359, 364, 366
 Millhouse, D. E., 227
 Milne, R. G., 83, 93, 94
 Milus, E. A., 248
 Mims, C. W., 379
 Minton, N. A., 179
 Mishanec, W., 196, 198
 Misiorny, A., 439
 Mitchell, G. A., 177
 Mitchell, R., 243
 Mitra, M., 278
 Mitsuhashi, J., 411
 Miyata, Y., 242
 Montgomerie, I. G., 285
 Montoya, A. L., 137
 Moore, E. L., 245
 Moore, G. D., 155
 Moore, J. D., 35
 Moore, K. J., 72
 Moore, M. B., 244, 245, 248
 Moore, W. F., 202
 Morelet, M., 302
 Moreno, P., 83, 101
 Moreno, R. A., 181
 Morgan, J. V., 312
 Morgan, J. W. W., 439
 Morrall, R. A. A., 278-81
 Morrison, J., 170
 Morton, D. J., 176
 Moscovitz, M., 88, 94, 97, 101
 Motoyoshi, F., 159, 160
 Mouches, C., 101
 Moutou, G., 101
 Mower, R. L., 322, 323, 377, 384
 Muehlbauer, E. J., 198
 Muhlbach, H.-P., 149
 Mukhopadhyaya, M. C., 179
 Mulinge, S. K., 75-78
 Müller, E., 300, 302, 377, 378, 380
 Muller, G. J., 116
 Muller, K. O., 318
 Mulleit, L. F., 75
 Mullins, C. A., 170
 Muniyappa, V., 409
 Muncke, D. E., 222-25, 227, 230
 Murant, A. F., 405, 421
 Murphy, C. F., 276
 Murphy, H. C., 277, 281
 Muscatine, L., 309, 318
 Musket, A. E., 276
 Mussell, H. W., 326
 Myers, A., 309, 321-23

N
 Nacht, G., 442, 448, 449
 Nagy, A. H., 149, 157
 Naito, N., 248
 Nakane, P. K., 90
 Nakaya, K., 241
 Namkoong, G., 363
 Nancarrow, J., 170, 173
 Nance, W. L., 358, 361, 367
 Nandris, D., 242
 Nannfeldt, J. A., 302
 Nasr, H. G., 180
 Nassar, S. H., 200, 202

Natti, J. J., 70, 171
 Natti, T. A., 169
 Navarro, L., 83, 101
 Neely, D., 300
 Neely, G. E., 262
 Neergaard, P., 344
 Nehls, R., 156
 Neish, G. A., 304
 Nelson, R. R., 247, 248
 Nester, E. W., 137, 138
 Netscher, C., 243
 Netting, A. G., 249
 Newhall, A. G., 213, 225, 227
 Newhook, F. J., 242
 Newman, E. I., 341
 Newsom, L. D., 412
 Newton, A., 179
 Newton, J. O., 227
 Newton, W., 407
 Nhami, A., 101
 Nicholls, P. H., 110, 116
 Nichols, C., 101
 Nicholson, R. L., 241
 Nickell, L. G., 148, 150, 151
 Nicolaieff, A., 83, 93, 94
 Nienhaus, F., 345
 Niessen, A., 213
 Nimmanpisut, S., 442
 Nineham, L. J., 97
 Nisbet, L. J., 384, 385
 Nissen, P., 312
 Nobel, P. S., 317, 325
 Noble, M., 285
 NOFFSINGER, E. M., 21-28
 Noorbakhsh, M., 269
 Norin, T., 439
 Norris, D. M., 335, 341
 Norton, D. C., 431-33
 Norton, J. B. S., 382
 Norton, J. D., 202
 Nutman, F. J., 72, 76-78

O
 O'Beirne, A. J., 90
 O'Brien, D. G., 276, 278, 281
 O'Brien, T. P., 239, 242
 Odvody, G. N., 169, 172, 173, 182, 278
 O'Gara, P. J., 260
 Ohm, H. W., 248
 Ohr, H. D., 115
 Okigbo, B. N., 180, 181
 Olien, C. R., 245, 249
 Olytsky, P. K., 407
 Olsen, C. M., 213, 223, 225
 Olson, L., 167
 Olson, R. E., 260
 Olothof, T. H. A., 429, 432
 Omer, M. E. H., 314
 Onesiosan, P. T., 278
 Once, T., 248

Orion, D., 211, 214, 217, 219, 220
 Orlob, G., 419
 Oraler, R. J., 439
 Orton, C. R., 373, 377
 Orton, T. J., 154
 Orton, W. A., 200
 Oshima, N., 159, 160
 Osner, G. A., 381
 Oster, G., 428
 O'Sullivan, M. J., 90
 Oswald, J. W., 279, 292
 Otsuki, Y., 160
 Ou, S. H., 180
 Outka, D. E., 147

P

Paddick, R. G., 284, 286
 Paddock, E. F., 146
 Pahl, K., 156
 Palivali, J. C., 419, 420
 Pandya, B. P., 199
 Panopoulos, N. J., 243
 Papavizas, G. C., 170, 223, 226
 Papendick, R. L., 170, 342, 343
 Parameswaran, N., 386
 Parbery, D. G., 241, 377
 Park, D., 242
 Park, D., 150
 Parker, J. H., 127
 Parker, M. B., 179
 Parkinson, J. S., 243
 Parks, W. L., 170
 Parlevliet, J. E., 47, 131, 247, 248
 Partridge, J. E., 201, 278
 Partyka, R. G., 72
 Pate, J. S., 320
 Patel, P. N., 199, 201-3
 Pathak, M. M., 192
 Patrick, J. W., 324
 Patrick, Z. A., 171, 177
 Patton, R. F., 239, 241, 245
 Paul, H.-L., 83, 94
 Paul, V., 120
 Pavlica, D. A., 226
 Payne, C. C., 89
 Pearce, R. B., 385
 Pearson, R. W., 342
 Pease, R. W., 213
 Pelcher, L. E., 160
 Pell, E. J., 335
 Pelletier, R. L., 321, 323
 Penner, D., 72, 113
 Pereira, H. C., 76
 Perlmann, P., 83, 87
 Perry, C. E., 179
 Person, C., 134
 Petersen, H. J., 193
 Peterson, C. A., 107, 108, 110, 111, 114, 116
 Peterson, D. M., 112
 Peverett, H., 287
 Phatak, S. C., 177
 Phelps, W. R., 353, 354, 358, 360
 Phillips, D. V., 176, 177
 Phillips, R. E., 167, 169
 Phillips, R. L., 149
 Phillips, S. H., 167, 169
 Piecing, L., 281
 Pierce, W. H., 197
 Pierre, R. E., 318
 Pina, J. A., 83, 101
 Pinchinat, A. M., 168, 180, 194
 Pinkas, Y., 112, 115
 Pinter, P. J. Jr., 343
 Pirie, N. W., 6
 Piron, P. G. M., 101
 Pirone, T. P., 403, 407
 Pitcher, R. S., 243
 Platt, H. W., 278-80
 Platz, G. J., 277, 278, 280, 281, 283
 Plucknett, D. L., 168, 180
 Plumb, R. T., 407
 Poehlman, J. M., 199
 Politis, D. J., 246
 Pollard, L. H., 192
 Popham, T. W., 361
 Potrykus, I., 146, 147
 Potter, J. M., 241
 Powell, C. A., 101
 Powell, N. T., 335, 336, 341, 342, 347
 Power, J. B., 149, 154, 156
 POWERS, H. R. JR., 353-71; 133, 353, 355-63, 365-67
 Pozsar, B. I., 323
 Prasad, M. N., 276
 Prasad, S. K., 179
 Precht, H., 220-22
 Preece, T. F., 242
 Preil, W., 101
 Prentice, E. G., 276, 278, 281
 Preston, N. W., 201
 Price, C. E., 108-10, 112
 Price, T. V., 75, 79
 Prihar, S. S., 169
 Prior, C., 440, 449, 450
 Pritchett, W. L., 361, 362, 366
 Proctor, P., 385, 386
 Procupier, J. D., 155
 Proeseler, G., 414
 Prot, J. C., 243, 244
 Providenti, R., 195-98
 Pryce, R. J., 145, 440, 441, 445, 446, 448, 453, 454
 Przewozny, T., 152, 153
 Psutka, J., 109
 Pueppke, S. G., 448
 Pullman, G. S., 212-14, 217, 219-23
 Purcifull, D. E., 94, 97, 101
 Purs, G. S., 201, 202
 Pywell, M., 170, 173

R

Raccah, B., 101, 403, 404
 Rachie, K. O., 190
 Rademacher, B., 72
 Raghavan, V., 146
 Raghaven, D., 231
 Raghavendra, N. N., 222
 Ragdale, D. W., 412
 Rai, P. V., 240, 242
 Rains, D. W., 311
 Raj, S., 201-3
 Rancillac, M., 160
 Rao, A. S., 169, 175
 Rapilly, F., 283, 287, 288, 290
 Raski, D. J., 420
 Ratanabanangkoon, K., 442
 Rathaiah, Y., 238, 239, 241, 245
 Ravenscroft, A. V., 170
 Ravise, A., 115
 Rawlinson, S. L., 343
 Raymer, W. B., 13
 Raymundo, A. K., 243
 Rayner, R. S., 76
 Razvjazkina, G. M., 415
 Reed, W., 269
 Reeder, B. D., 202
 Rees, R. G., 277, 278, 280, 281, 283
 Regev, Y., 211, 213, 226
 Reginato, R. J., 343
 Renfeld, D. W., 317
 Reichle, R. E., 318
 Reid, R. K., 160
 Reid, R. W., 452
 Reilly, J. J., 114
 Reinert, J., 146
 Reinert, R. A., 262
 Reisenauer, H. M., 343
 Renfro, B. L., 287
 Rennerfelt, E., 442, 443, 445, 448, 449
 Ribbons, D. W., 316
 Ribeiro, R. de L. D., 195
 Rich, A. E., 452
 Richards, L. A., 342, 343
 Richmond, C., 113
 Richter, J., 87
 Ride, J. P., 145, 316, 317, 325, 385
 Ries, S. K., 70
 Ries, S. M., 243
 Ries-R, F., 45
 Risk, P. H., 412
 Roane, C. W., 169
 Roberts, B. A., 265
 Roberts, F. M., 72, 76-78
 Roberts, I. M., 83, 405

Robertson, D. G., 200, 202
 Robertson, J. S., 427
 Robertson, W. M., 420, 421
 Robinson, P. M., 242
 Roca, F., 420
 Rochow, W. F., 93, 101, 406
 Rock, G. L., 442, 444
 Rocean, M., 410
 Rogers, K. M., 202
 Rogers, W. E., 288
 Rohde, W. A., 179
 Roitt, I. M., 97
 Roivainen, O., 407-9
 Rollins, R. C., 297-99
 Romig, R. W., 244, 245, 249
 Romig, W. R., 72
 Roncadori, R. W., 176, 178
 Rose, A. H., 220, 221
 Rosenberg, S. L., 386
 Rosielle, A. A., 287
 Ross, R., 297-99
 Rotem, I., 211, 214, 217, 219, 226
 Rotem, J., 275
 Rottem, S., 97, 101
 Rowan, S. J., 355, 364, 367
 Rowell, J. B., 70, 133, 245, 248, 249
 Rowling, R. H. D., 275
 Royle, D. J., 71, 238-40, 242, 243, 247
 Rubes, L., 197
 Rubin, B., 211, 226, 227
 Rubin, R. L., 87, 93
 Rudde, F. H., 158
 Rudman, P., 441, 443, 446
 Ruinen, J., 242
 Rush, M. C., 241, 245, 246
 Russell, E. W., 342, 343
 Russell, G. E., 247, 248, 405
 Russell, M. L., 159
 Russo, M., 83

S

Saari, E. E., 290
 Sabet, K. A., 32
 Sabo, F. E., 239, 242
 Sacks, J. M., 83, 101
 Sacristan, M. D., 157
 Safranyik, L., 452
 Saillard, C., 101
 Sakimura, K., 415
 Salazar, L. F., 83, 89, 101
 Saleh, N., 410
 Sallans, B. J., 172
 Sally, B. K., 287
 Salomon, R., 94, 96
 Salonen, E.-M., 87, 93, 94
 Samborski, D. J., 321
 Sander, E., 406
 Sanderson, F. R., 284, 286
 Sanderson, J. B., 172
 Sando, Z., 211, 217, 226
 Sands, D. C., 333, 341
 Sanford, G. B., 232
 Sanford, W. G., 168, 180
 Sappin-Trouffy, P., 379
 Sasser, M., 72
 Sastry, G. R. K., 155
 Saunders, J. W., 149
 Savino, V., 83
 Sawhney, R. K., 160
 Saxena, J. K., 197
 Scangos, G. A., 158
 Scarchuk, J., 170, 171
 Schaad, N. W., 89, 175
 Scharen, A. L., 170, 176, 276, 281, 283, 286, 287, 289
 Scheffer, R. P., 161
 Scheffer, T. C., 259
 Schein, R. D., 433
 Scheinpflug, H., 118-20
 Schell, J., 158
 Schieder, O., 152, 153, 157
 Schippers, B., 313
 SCHMIDT, R. A., 353-71; 354, 355, 358, 361, 362, 366
 Schneider, C. L., 414
 Schneider, R. E., 261, 262
 Schnock, M., 194
 Schoeppler, A., 440, 441
 Schönherr, J., 242
 Schooley, J. M., 116
 Schopf, J. M., 297-99
 Schrader, L. E., 112
 Schröder, H., 290, 292
 Schroeder, W. T., 196-98
 Schröter, E., 259
 Schroth, M. N., 227, 243, 313
 Schuster, G., 325
 Schuster, M. L., 171, 180, 195, 196
 Schuurs, A. H. W. M., 90, 91, 93
 Schwartz, A. G., 156
 Schwartz, H., 195
 Schwinn, F. J., 115, 241, 246
 Scialy, D., 137
 Scott, H. A., 415, 417, 418
 Scott, K. J., 147, 148
 Secor, G. A., 152
 Sehgal, O. P., 199
 Seinhorst, J. W., 429, 432
 Selman, B. J., 418
 Semancik, J. S., 13, 341
 Semeniuk, G., 71
 Senboku, T., 413
 Sequeira, L., 171
 Sewell, G. W., 171
 Seymour, M. K., 240, 243
 Shabtai, S., 160
 Shahin, E., 151-53
 Shain, L., 440, 441, 449-51
 Shands, H. L., 278, 285

SHANER, G., 273-96; 248, 289, 290
 Shannon, J. C., 311
 Sharaf, Y., 88
 Sharman, S., 239
 Sharp, E. L., 287
 Sharp, W. R., 146
 Sharpe, K., 109, 116
 Sharville, E. G., 57
 Shaw, B. L., 385
 Shaw, C. G., 452
 Shaw, D. E., 276
 Shaw, F. J. F., 191
 Shaw, M., 321
 Shearer, B. I., 287
 Shearer, B. L., 288
 Shepard, J., 151, 153
 SHEPARD, J. F., 145-66; 146-48, 151-53, 161
 Shepherd, K. W., 129, 135
 Shepherd, R. J., 83, 90, 91, 101, 403, 406
 Sherf, A. F., 63
 Sherwin, H. S., 202
 Sherwood, R. T., 375, 385, 386, 449
 Shigo, A. L., 451, 452
 Shih, M. J., 448
 Shikata, E., 413, 414
 Shimomura, T., 160
 Shin, S., 156
 Shipton, P. J., 180
 Shipton, W. A., 245, 276-78, 287
 Shivshankar, G., 192
 Shoemaker, C., 428
 SHOEMAKER, R. A., 297-307
 Shone, M. G. T., 111
 Shortle, W. C., 452
 Shrimpton, D. M., 437, 440, 442, 443, 448, 452
 Shukla, D. D., 83, 94
 Shukla, G. P., 199
 Shurleff, M. C., 169
 Shyluk, J. P., 148
 Sidhu, S. S., 265
 Siebert, R., 45
 Sienhorst, J. W., 429, 430, 432
 Siggers, P. V., 356, 359-61
 Sigler, L., 298
 Sikora, F. A., 345
 Silbernagel, M. J., 193
 Siler, D. J., 159
 Silverstein, S., 158
 Silverstein, S. D., 213
 Silvestre, P., 190
 Simbwa-Bunnya, M., 194
 Simons, J. N., 411, 413
 Simons, M. D., 42, 47, 146, 277, 281
 Sims, J. J., 116
 Sinclair, J. B., 116, 200, 202
 Singh, D., 199, 202

Singh, D. P., 199
 Singh, K., 199
 Singh, K. P., 192
 Singh, R. M., 136
 Singh, S., 282
 Singh, S. R., 200
 Sitterly, W. R., 174
 Sitiyo, P., 199
 Skajennikoff, M., 287
 Skelly, J. M., 264
 Skogerboe, R. K., 226
 Skoropad, W. P., 241, 249,
 273, 275, 279
 Sleeth, B., 356, 358
 Slesinski, R. S., 319
 Sluder, E. R., 361
 Slykhuis, J. T., 419
 Small, L. W., 118
 Smika, D., 172
 Smith, A. M., 72, 226
 Smith, D., 309, 318
 Smith, D. C., 320
 Smith, D. H., 227
 Smith, H. H., 156
 Smith, I. M., 241
 Smith, J. H., 220, 221, 223
 Smith, L. B., 414
 Smith, R. S., 439
 Smith, S., 158
 Smith, W. H., 258, 361, 362,
 366
 Smittle, D. A., 174, 176, 177
 Snel, M., 108
 SNOW, G. A., 353-71; 355-57,
 359-61, 364, 366, 367
 Snyder, E. B., 363
 Snyder, W. C., 171, 177
 So, M. L., 320
 Solei, Z., 116
 Sonka, J., 311
 Sopory, S. K., 149, 152, 153
 Soria, J., 168, 180
 Southards, C. J., 178
 Spear, R. N., 239
 Speirs, D. C., 366
 Sprague, H. B., 343
 Sprankle, P., 113
 Springer, M. S., 243
 Springer, W. D., 149
 Squillace, A. E., 354, 361, 362
 Srivastava, R. L., 197
 Srivastava, U. S., 418
 Stafieu, F. A., 297-99
 Stakman, E. C., 126, 357
 Stall, R. E., 70
 Standifer, L. C., 176
 Stanghellini, M. E., 324, 343
 Stanley, W. M., 6, 7
 Staples, R. C., 237-41, 244,
 245, 249
 Starkey, R. L., 227
 Starlinger, P., 155
 Staskawicz, B., 160

Statler, G. D., 379
 Staub, T., 115, 241, 246
 Steadman, J. R., 195
 Stein-Margolina, V. A., 419
 Steinswat, W., 192
 Stoessl, A., 442, 444, 445, 447,
 448
 Stover, R. H., 227
 Strandberg, J. O., 319
 Streeker, J. G., 90
 Streets, R. B. Sr., 333, 339,
 345, 346, 349
 Strobel, G., 151, 153
 Strobel, G. A., 240, 242
 Strzalka, K., 158
 Stuckey, R. E., 324
 Stykes, B. A., 72, 427, 432, 433
 Sudarisman, S., 410
 Sulladmath, V. V., 192
 Summer, G. K., 92
 SUMNER, D. R., 167-87; 169,
 173, 174, 176, 177, 179
 Sunderland, N., 154, 155
 Supaad, M. A., 70
 Susslow, T., 227
 Sussman, A. S., 222
 Sutton, J. C., 278, 280, 282
 Suzuki, M., 146
 Swanger, H. H., 22
 Sweet, J. B., 101
 Sztejnberg, A., 248

T

Takahashi, Y., 419
 Takebe, I., 146, 160
 Talbot, P. H. B., 451
 Tamada, T., 89, 93, 101
 Tamietti, G., 212, 218, 219,
 231
 Tammen, J. F., 64
 Tanasevych, I. I., 170
 Tani, T., 248
 Tarr, H., 275
 Tattar, T. A., 333, 452
 Taylor, A. J., 131
 Taylor, C. E., 405, 412, 420,
 421
 Taylor, J. A., 215
 Taylor, J. D., 196
 Tazelaar, M. F., 197
 Temmink, J. H. M., 317
 Teng, P. S., 433
 Teranaka, M., 15
 Ternynck, T., 90, 92
 Teviotdale, B. L., 278
 Thakur, R. P., 199
 Thomas, E., 146, 147
 Thomas, G. G., 239, 240, 243
 Thomas, G. W., 167, 169
 Thomas, H. R., 192
 Thomas, M. D., 260
 Thomas, S. H., 171

Thompson, C. R., 261
 Thompson, L. K., 265
 Thompson, N., 289
 Thor, G. L., 262
 Thorn, G. D., 116
 Thorne, G., 21-23, 25-28
 Thottappilly, G., 405, 406
 Threadgill, E. D., 176, 177
 Thresh, J. M., 83, 98, 101
 Thrower, L. B., 320
 Thurston, H. D., 130, 248
 Tietz, H., 227
 Tiffany, L. H., 241
 Tillerson, H. F., 367
 Tingey, D. T., 262
 Tippett, J. T., 239, 242
 Tisne, A., 262
 Tjamos, E. C., 212, 218, 219
 Toler, R., 403, 411, 412
 Tompkins, D. R., 347
 Tompkins, F. D., 170
 Torrance, L., 97
 Torres, E., 42, 47
 Totten, R. E., 151
 Toussoun, T. A., 171, 177
 Townend, M. S., 111
 Toxopeus, H. J., 129
 Trainor, M. J., 241
 Tran, U. V., 213
 Trebuchet, G., 194
 Trenbath, B. R., 181
 Treshow, M., 265
 Treur, B., 403, 411, 412
 Tripathi, R. M., 197
 Trocha, P., 317
 Tsai, J., 403, 411, 412
 Tsai, J. H., 418
 Tsivion, Y., 309
 Tsuzuki, T., 241, 249
 Tucker, C. L., 159
 Tuite, J., 346, 347
 Tukey, H. B., 312, 314-16, 326
 Tukey, H. B. Jr., 311-16, 326
 Tulasne, L. R., 373
 Tuleen, D. M., 174
 Tully, J. G., 317, 341
 Tummala, R. L., 428
 Tunac, J. B., 71
 Turner, D. M., 276, 281
 Tydesley, J. B., 289
 Tyree, M. T., 111, 114

U

Uchida, M., 111, 117, 118
 Underwood, L. M., 356, 357
 Unwin, C. H., 442, 444, 445,
 447, 448
 Upper, C. D., 159, 160
 Upstone, M. E., 70
 Uyemoto, J. K., 89, 94, 101
 Uzrad, M., 211, 226

V

Vaheri, A., 87, 93, 94
 Valder, P. G., 276
 Valladares-Sanchez, N. E., 196
 Van Andel, O. M., 70
 Van Arsdel, E. P., 362
 Van der Berg, G. A., 73, 116
 Van Der Meer, F. A., 101
 Van der Plank, J. E., 47, 130,
 150, 247, 248
 Vanderveken, J. J., 411
 Van der Voosen, H. A. M., 76
 Van der Zweep, W., 70
 VanEtten, H. D., 448
 Van Gundy, S. D., 223, 227
 van Kammen, A., 200
 Van Montagu, M., 158
 Van Norel, A., 197
 Van Regenmortel, M. H. V.,
 83, 89, 93, 94, 97
 Van Sumere, C. F., 385
 Van Sumere-De Preter, C., 385
 Van Uden, N., 222
 Van Velsen, R. J., 413, 414
 Van Vuurde, J. W. L., 313
 Van Weemen, B. K., 90, 91,
 93
 Van Wijh, W. R., 169
 Vasil, I. K., 146, 148, 149, 156,
 158
 Vasil, V., 146, 148, 149, 156,
 158
 Veerappa, K. B., 192
 Veitch, L. G., 427, 432, 433
 Verhoeven, A. A., 299, 300
 Verma, J. F., 199
 Vidal-Leira, M. M., 222
 Viennot-Bourgin, G., 101
 Vigliorchio, D. R., 243,
 247
 Vignault, J. C., 101
 Viljanen, M. K., 87
 Vine, B. H., 77
 Vink, J., 101
 Vir, S., 192
 Virik, E., 266
 Volcani, Z., 32
 Voller, A., 83, 84, 87, 89, 90,
 92, 99
 von Arx, J. A., 300, 377, 378,
 380
 von Hammarlund, C., 197
 von Rudloff, E., 441
 Von Wechmar, M. B., 283
 von Wettstein, D., 249
 von Wettstein-Knowles, P., 249
 Voss, E. G., 297-99
 Vo-Thi-Hai, G. B., 115
 Vrugink, H., 101
 Vudhivianich, P., 174
 Vutic, D., 32

W

Wade, B. L., 197
 Waggoner, P. E., 214-16
 Wahl, I., 248
 Wakley, P. C., 363
 Waksman, S. A., 227
 Waldher, J. T., 169, 170
 Walk, S. J., 285, 286
 Walker, J., 301
 Walker, J. C., 35, 39, 127, 198,
 200, 202, 338, 346
 Walker, L. L., 158
 Walkinshaw, C. H., 359
 Wallace, A. T., 136
 Wallace, D. H., 195
 Wallace, H. R., 243, 244, 333,
 342, 349, 427, 431-33
 Wallace, T., 343
 Wallen, V. R., 197
 Waller, J. M., 75, 77
 Wallis, J. A. N., 77
 Walmsley-Woodward, D. J.,
 242
 Walters, H. J., 417
 Walterscheidt, M. J., 362
 Wang, D. T., 381-83, 387
 Wang, M. C., 116
 Wang, S., 439, 441, 448
 Wang, Y., 428
 Warcup, J. H., 225, 227
 Ward, E. W. B., 442, 444, 445,
 447, 448
 Ward, R. H., 361, 365
 Ward, S., 243, 247
 Warden, J., 149, 153
 Wardlaw, I. F., 324
 Waring, R. H., 108
 Wark, D. C., 197
 Waters, M. D., 92
 Watkins, D. A. M., 109, 120
 Watkins, J. E., 278
 Watson, B., 137
 Watson, J. A., 440, 452
 Watson, M. A., 405
 Weather, L. G., 13
 Weaver, L. O., 243
 Webb, R. M., 170, 171
 Weber, G., 156
 Webster, J., 278, 383
 Webster, R. K., 177, 303
 Wehmeyer, L. E., 277
 Wehling, J. L., 377, 387
 Weinberg, E. D., 325
 Weinhold, A. R., 212-14, 217,
 219, 220, 310, 314
 WEINSTEIN, L. H., 257-70;
 258, 260, 262, 263, 265
 Weiss, M. C., 156
 Wells, O. O., 361, 363
 Wellsford, E. J., 377, 378, 380
 Wenhardt, A., 172
 Wenzel, G., 149, 152, 153

Weresub, L. K., 297, 299, 300
 Wester, R. E., 192
 Wheeler, H., 242, 334, 337
 Wheeler, H. E., 136, 318, 326
 Wheeler, M., 263
 Wheen, J. C., 232
 Whetzel, H. H., 334
 Whipple, J. M., 321-23
 Whitcomb, R. F., 317, 341
 White, D. G., 169
 White, D. W. R., 156
 White, G. A., 116
 White, J. G., 212, 218
 White, R. F., 145
 White, W. C., 175
 Whitehead, A. G., 432
 Whitney, H. S., 452
 Whittingham, W. F., 379
 Whittington, W. J., 198, 199
 Whittle, A. M., 277
 Wick, D. M., 177
 Wicks, G., 172
 Wiebe, H. H., 343
 Wiebe, P. O., 32
 Wiese, M. V., 170, 333, 349,
 427, 432, 433
 Wilbur, W., 222-25, 230
 Wilcox, W. W., 446
 Wilcoxson, R. D., 245, 248,
 290
 Wilde, G. E., 412
 Wilhelm, G. E., 386
 Wilhelm, S., 343
 Wilhour, R. G., 262
 Wilkins, W. H., 386, 387
 Wilkinson, R. E., 195
 Will, A. G. K., 180
 Williams, A. H., 446
 Williams, C., 89
 Williams, E. B., 241
 Williams, I. H., 110, 116
 Williams, J. R., 285
 Williams, P. H., 178, 180, 240,
 317, 319
 Williamson, B., 239, 245
 Wilson, J. F., 171
 Wilson, M. B., 90
 Wisdom, G. B., 90, 93
 Wittmuss, H., 167
 Wittwer, S. H., 312, 314-16,
 326
 Wolcott, G. N., 442
 Wolf, F. A., 378
 Wood, A. V., 111
 Wood, C. J., 147, 148
 Wood, F. A., 64
 Wood, H. A., 9
 Wood, K. R., 160
 Wood, R. K. S., 245, 313, 314,
 326
 Woodcock, D., 121
 Worf, G. L., 169

AUTHOR INDEX 471

Worley, R. E., 176

Wright, S. E., 101

WYNNE, W. K., 237-55;
237-41, 244, 245, 247, 249

Wyse, D. L., 72

Y

Yakovleva, N. P., 70

Yalow, R. S., 84

Yamamoto, H., 248

Yang, S. L., 245, 246

Yanney, J., 169

Yarwood, C. E., 78, 221, 321

Yeh, Y., 239

Yen, D. E., 196

Virgou, D., 245

Yoder, O. C., 158, 160

Yohé, J. M., 199

Yora, K., 15

York, D., 158

York, D. W., 195

Young, B. R., 242

Young, H. C. Jr., 287

Young, J., 177

Young, J. M., 314, 317

Youtsey, C. O., 83, 101

Yukawa, Y. B., 317, 319

Z

Zadoks, J. C., 288, 428, 433

Zakaria, M. A., 226

Zaki, A. I., 115, 322

Zapata, F. J., 149

Zaumeyer, W. J., 192-96

Zeig, R. G., 147

Zentmyer, G. A., 71, 115, 239,
242, 247

Zeydan, O., 211, 214, 217, 219,
220

Zeyen, R. J., 247, 413

Zilberstein, Y., 243

Zilkah, S., 160

Zillinsky, F. J., 281, 284, 285

Zimmerman, M. H., 312

Zink, R. T., 170

Zitter, T. A., 411, 418

Zobel, B., 355, 363

Zoerb, M., 355, 363

SUBJECT INDEX

A

Abacarus hystrix
ryegrass mosaic virus
transmission, 420
Acetyl salicylic acid, 145
Actipron, 116
Acyalananines, 114-15
Acyrthosiphon pisum
pea enation mosaic virus
transmission, 405-6
Aegricorpus, 133-34
Agrobacterium tumefaciens
Ti plasmid as DNA vector,
158
virulence plasmid, 137-38,
141
Agropyron mosaic virus
mite relationship, 420
Air pollutants and plant
productivity, 257-71
early efforts at estimation of
effects, 259-60
effects on productivity
combinations, 262-63
controlled field
experiments, 260-64
natural ecosystems, 264-68
finale, 268-69
introduction, 257-59
meaning, 257-58
Albaugh, Mabel, 23
Albugo trapa pogonis
host metabolism
accumulation, 323
Albugo spp.
pustule similarity to rust
pustules, 383
Alfalfa
protoplast regeneration, 149
resistance
Phytophthora chemotaxis,
242
Alfalfa crown wart
host cell wall dissolution, 385
Aliette, 108, 115-16
Alkaline phosphatase
immunosorbent assays, 90
substrates, 91-92
Alternaria solani
disease proneness increase,
70
host protoplast derived
clones, 151, 153
5-Amino salicylic acid, 92
Amitrole, 112-13
Ammonia
Fusarium suppression, 226
Amylostereum areolatum
pinosyvin interaction, 451

Amylostereum sp.
stilbene
inhibition, 442
synthesis, 440
Antimycin A, 39
Aphanomyces euteiches
host resistance genetics, 198
suppression by soil
amendments, 226
Aphelinoides sp.
penetration
tropism, 240
Aphis gossypii
Centrosteema mosaic virus
vector, 413
Apiognomonia, 300-1
veneta, 304
Apoplast
nutrient concentration
parasite growth, 314-17
nutrient exudates, 313
pathogen
contact, 317
feeding, 320-21, 324-26
growth, 319
properties, 310-11
solute content, 311
transfer cells, 320
Apple scab
control, 120
Arabis mosaic virus
antiserum specificity, 94
soluble antigen, 96
Armillaria mellea
control by solarization,
230
sublethal heating and
survival, 224
thermal death data, 222
Arthropod vectors of viruses
see Virus vectors
Ascochyta
pinodella
herbicide effect, 72
host resistance genetics,
197
pisi
host resistance genetics,
197
rabiei
host resistance genetics,
191-92
Aster wilt
increased by benomyl, 73
Aster yellows, 15-16
Atrazine
Fusarium root rot increase,
72
Avocado
disease control, 115

2,2'-Azino-di [3 ethylbenzothia-
zolin sulfone(6)], 92

B

Bacillus subtilis
heat resistance, 225
Bacterium, 32
Baily, Blanche, 29
Baily, Edward Hodges, 29
Balsam bark beetle, 267
Barley scald
environment effect, 273,
275-76
inoculum source, 273, 275
see also Drechslera
Barley yellow dwarf virus, 96
transmission, 406-7
Bancroft, J. B., 5, 9
Bayleton
wheat leaf rust
application to control
epidemic, 46
control, 45
spray campaign results, 46
see also Triadimenol
Bean
disease resistance genetics,
192-96
bacterial diseases, 195-96
fungus diseases, 194-95
virus diseases, 193-94
monoculture effect, 181
Bean common mosaic
host resistance genetics,
193-94
Bean rugose mosaic
host resistance genetics,
193-94
Bean yellow mosaic
host resistance genetics, 193,
196
Beet leaf curl virus
transmission, 414
Beet yellow virus
tissue infected, 412
transmission, 404-5
Bemisia tabaci
virus vector, 409-10
Benomyl, 109, 116
disease increase
aster wilt, 73
Botrytis, 74
patch disease, 72
Eutypa control, 75
failure
soil drench, 110
6-Benzylaminopurine, 153
Biloxazol, 120
structure, 119

Bipolaris ravenelli
disease development, 377

Black shank of tobacco
systemic fungicide control, 114

Blackman, 31

Bordeaux mixture
coffee yield increase, 75

Botrytis
cineraria
heat sensitivity, 221
penetration types, 239
resveratrol, 439, 454

fabae
host resistance genetics, 198-99

squamosa
germ tube orientation, 313

Botrytis sp., 321

Botrytis rot
fungicide increase, 70

Brachycaudus helichrysi var.
varci
virus transmission, 413

Brakke, M. K., 17

Broadbean
disease resistance genetics, 198-99

Broccoli
Peronospora increase, 70

Brome mosaic virus
fate in nonvector mites, 419-20

Bromovirus
transmission, 416

Brooks, F. T., 29-31, 33

4-Butyl-4H-1,2,4-triazole
see Indar

C

Cacao swollen shoot virus
transstrial passage, 408

Cacao viruses
mealybug vectors, 407
transmission probabilities, 408

Cadang-cadang, 14

Calcium
accumulation at infection sites, 324
solarized soils, 226

Callose, 325

Calonectria, 303

Carbendazim, 112-13, 116

Carboxin
degradation within plant, 108-9

Carnation smut
infection cycle, 381

Cauliflower mosaic virus, 91
DNA vector, 158

Cellulase, 385, 443

Centrosema mosaic virus
vectors, 413

Cephalosporium gramineum
tillage effect, 170

Ceratocystis montana
pinosylin interaction, 451-52

Cercospora
beticola
stomatal penetration, 241

canescens
host resistance genetics, 199

seminalis
disease development, 377

zeae-maydis
survival in corn residue, 169

Chester, K. S., 6

Chickpea
disease resistance genetics, 191

Chloromequate chloride
effect on disease, 71

2-Chloroethane phosphoric acid, 76

Chloropicrin
disease control, 73

Chlorotic leafspot
ELISA specificity, 94

Chrysanthemum stunt viroid, 12

Citrus exocortis viroid, 13

Citrus tristeza
ELISA
indirect method, 97
soluble antigen, 96
specificity, 94

Cladosporium cucumerinum
host wall contact and
nutrition, 318

stilbene effect, 447

Clasterosporium carpophilum, 74

Claviceps
paspali
stoma structure, 376

purpura, 376-77
disease description, 374

glucanase, 385

host sucrose transport
stimulation, 323

host tissue invasion
restriction, 386

host vessel degradation, 386

nutrient translocation, 384

tar spot comparison, 375-76

tripsici
host-parasite interface, 377

Clover club leaf, 16-17

Cobb, N. A., 27

Coccidiella scutula
stoma development, 378

Coccostroma spp.
stoma, 378

Cochliobolus sativus
foliar infection, 277
tillage effect, 170, 172

Coffee
disease control, 75
coffee berry, 76-78
leaf rust, 76
yield increase
Bordeaux mixture, 76-76

Coleoptera
virus transmission, 415-18
characteristics, 417-18
virus characteristics, 416

Colletotrichum
coffearium
control, 75, 77-78
development, 76
fungicide effects, 77-78

graminicola
survival in corn residue, 169

lindemuthianum
cell wall degrading
enzymes, 326

genetic variability, 126

germ tube orientation, 313

host resistance genetics, 194

piperatum
appressoria formation
stimulation, 313

Comovirus
transmission, 415

Coniophora puteana
pinosylin change, 443

Copper
uredospore germination
stimulation, 72

Coriolus versicolor
pinosylin effect, 444

stilbene effect, 446-47

Corn
minimal tillage
effect on disease, 175, 177
effect on nematodes, 178

intercropping effect, 181

pathogen survival, 169

protoplast regeneration, 149

resistance to race T toxin, 157, 159-60

Corn smut
host nutrient translocation, 384

infection cycle, 381-82

Corynebacterium, 33
flaccidifaciens
host resistance genetics, 195-96

nebrascense
survival in plant debris, 171

Cowpea
tillage effect on disease, 176
intercropping, 181

Cowpea chlorotic virus, 181

Cowpea mild mottle virus
transmission, 410

Cowpea mosaic virus, 181
host callus tissue resistance, 159
host resistance genetics, 200

Cronartium
quercuum f. sp. *fusiforme*
genetics, 367
hosts, 356
life cycle, 355-56
pathogenic specialization, 359-60
pathogenic variability, 356
spore dispersal, 361
spore germination, 360
see also *Fusiform* rust
current status

ribicola
aceum initial, 380
host penetration, 239

Cucumber mosaic virus
host
protoplast response, 160
resistance genetics, 199-200
transmission, 404

Cucumber vein yellowing virus
transmission, 410

Curly top
host resistance genetics, 193

Cuticle
barrier to fungicide
penetration, 109

Cutin, 241

Cyclotomella disciformis
stroma development, 378

Cymbidium mosaic
ELISA
soluble antigen, 96

D

2,4-D, 112-14, 154, 160
disease proneness increase, 70

Dalbulus maidis, 411

Dasyphypha willkommii, 302

D-D
sclerotinia rot increase, 72

Dendroctonus ponderosae
pinosylvin interaction, 451-52
stilbene formation, 440

Dicarboximides, 117

2,2-Dichloro-3,3-dimethyl
cyclopropane carboxylic
acid, 145

Dickson, F., 5

Dickson, J. G., 39

Diclofop-methyl, 112

Dicloran, 117

Didymella lycopersici
soil reinestation, 225

3,5-Dimethoxy hydroxystilbene,
440

spore germination inhibition,
442

Dinoseb
effect on disease, 72

Diplodia pinea
stilbene synthesis, 440

Diplodia sp.
infection structure, 239

Disease resistance
horizontal vs vertical
resistance, 130-33
see also Protoplasts and
disease resistance

Disease resistance genetics in
legumes, 189-209
broadbean, 198-99
chickpea, 191-92
common bean, 192-96
bacterial diseases, 195-96
fungus diseases, 194-95
virus diseases, 193-94
conclusions, 203-5

cowpea, 200-1
table, 202-3

introduction, 189-91
edible crop production,
189-90

lablab bean, 192

lima bean, 192

pea, 196-98

fungus diseases, 197
virus diseases, 196-97

pea, 191

urd bean and mung bean,
199

Ditylenchus destructor, 26

DNA
genetic transformation of
plants, 158
hybridization
Agrobacterium plasmids,
137-38

Dodder
nutrient absorbing surface,
321

Dorlon
Sclerotinia rot increase, 72

Dorylaimida
virus vectors, 420
transmission mechanism,
420-21

Dowson, W. J., 29-34
career outline, 31-32
family history and education,
29-30
hobby, 29-30
research work, 32-33

Dowson, Walter, 29

Drechslera
avenae, 276
primary vs secondary
phase, 281

gramineas
diurnal sporulation,
278-79
phases, 281
temperature and seed
infection, 274

maydis
corn protoplasts resistance
to toxin, 157, 159-60

sorokiniana
airborne spores, 280
persistence in pericarp, 276
survival, 277
temperature and infection,
282

teres
ascocarp maturation, 277
conidiophore production,
278

temperature and seedling
infection, 276, 281

Drought
wheat leaf rust epidemic,
43-44

Dysmicoccus brevipes
pineapple wilt transmission,
407

E

ELISA, 403-4
antigen, 92
incubation conditions,
93-94
sample selection, 92
soluble antigens, 96
specificity, 94-96
antiserum
production, 88-89
requirements, 88
applications, 100-1
characteristics, 85, 87
indirect method, 96-97
modified method, 97-98
potential, 83
principles, 84-85
procedure, 86
quantitative data, 99-100

Elsinoë wisconsinense
tissue displacement, 378

Environmental effect on fungal
leaf blights, 273-96

barley scald, 273, 275-76
 difficulties in applying
 laboratory data to field, 291-92
 Drechslera leaf blights, 276-83
 ascocarp maturation, 277
 infection, 281
 phases, 281
 secondary infection, 282-83
 sporulation, 279-80
 temperature and seed infection, 276
 introduction, 273
 major fungal leaf blight of small grains, 274
 Septoria leaf blights, 283-91
 leaf infection, 286-87
 pycnidium formation, 288
 seed infection, 285
 spore dispersal, 285-86
 spore germination, 287-88
 sporulation, 283-85
 weather influence on infection, 289-91
 Epichloë typhina
 systemic infection, 379
 Erwinia, 32
 amylovora
 chemotaxis, 243
 Erysiphe
 cichoracearum
 host adaptation, 246
 graminis
 epicuticular wax
 degradation, 241
 gene products, 139
 host resistance, 131-32
 tropic failure, 246
 graminis f. sp. tritici
 host resistance genes, 132
 infection efficiency, 134
 pisi
 haustoria effect on plasmalemma, 319
 nutrient uptake by haustoria, 320
 polygoni
 host resistance genetics, 197, 199
 tiliae
 brome mosaic virus
 multiplication, 419-20
 wheat streak mosaic virus
 vector, 419
 Erysiphe sp.
 host nutrient movement, 322
 Erythritol, 384
 Escherichia coli
 plasmid transfer, 137
 Ethanol, 242
 Ethephon, 116
 Ethylene, 440
 Ethylene bis(dithiocarbamate)
 Botrytis increase, 70
 Eurotium clavigerum
 pinosylvin interaction, 451-52
 stilbene formation induction, 440
 Euschistus conspersus
 egestion, 412
 Euytpa armeniacae
 control, 74-75
 Extension plant pathology, 51-67
 achievement and recognition, 59-62
 FTEs, 60-61
 joint appointments, 60-62
 promotions, 60
 publication, 59
 a face in the crowd, 58-59
 conclusions, 65-67
 need in private sector, 66
 effective educational program, 53-55
 adoption process, 54
 functions, 56
 in pursuit of purpose, 51-53
 extension responsibilities, 53
 introduction, 51
 planning for future, 62-65
 needs, 64-65
 the plant pathology family, 55, 57
 roles of components, 57

F

Fenarimol
 structure, 119
 Ferbam, 364
 Fernow, K. H., 13
 Fluorescein monophosphate, 92
 Fluoride
 damage to forests, 265-67
 insect interaction, 267-68
 deposition near source, 265
 Fomes annosus
 pinosylvin
 effect, 444-45, 448
 formation induction, 440
 interaction, 449-51
 stilbene effect, 446
 Fungicides
 see Systemic fungicides
 structural requirements
 Fusarium
 culmorum
 chlormequat chloride
 effect, 71
 tillage system effect, 172
 dimerum, 304
 kuhnii, 304
 latertium
 Euytpa control, 75
 moniliforme
 ecofallow effect, 172
 taxonomy, 304
 nivale
 control, 117
 oxysporum
 notill and incidence, 171
 oxysporum f. sp. ciceri
 host resistance genetics, 191-92
 oxysporum f. sp. medicaginis
 host resistance genetics, 198
 oxysporum f. sp. pisi
 host resistance genetics, 197-98
 oxysporum f. sp. vasinfectum
 biological control in solarized soil, 224
 control by solarization, 217-18, 228
 thermal death data, 222
 proliferatum, 304
 roseum "graminearum," 175
 solani
 herbicide increase, 72
 solani f. sp. cucurbitae
 host electrolyte leakage, 324-25
 solani f. sp. phaseoli
 host wall contact, 318
 subsoiling effect, 173
 solani f. sp. solani
 host resistance genetics, 194-95
 udum
 disease resistance genetics, 191
 Fusarium spp., 301-2
 minimal tillage
 effect lack, 169
 increased populations, 171
 Fusiform rust current status, 353-71
 contributing factors to
 epidemic
 changing host patterns, 358
 intensive management, 358-59
 pathogenic specialization, 359-60
 weather, 360-61
 disease management
 nursery management, 364
 plantation management, 365-66
 resistance selection, 363
 site hazard evaluation, 361-62

site preparation, 364-65
use of alternate species for resistance, 362
use of resistant provenances of pine, 363
epidemic, 257
hosts, 356
introduction, 353-55
 incidence, 354
pathogen life cycle, 355-56
pathogenic variability, 356
research trends
 disease control, 367-68
 epidemiology research, 368
hosts, 366-67
pathogen, 367
resistance, 366

G

Gaeumannomyces, 301, 321
 graminis
 host nutrient movement, 323
 graminiv. var. tritici
 minimal tillage effect, 169
Gene-for-gene hypothesis, 128-31
Genetics
 see Host-pathogen genetics
 concept changes
Gerlachia, 301-2
Gibberella
 fujikuroi
 author citation, 305
 moniliformis
 correct citation, 305
Gibberellic acid
 synthesis inhibition, 120
 γ -Globulin, 87-88
adsorption conditions, 93-94
enzyme conjugates, 90-91
indirect ELISA, 96-97
purification, 89

Gloeoctinia
 granigena, 305
 temulenta, 305
Glucanase, 385
Glucose, 311
Glutaraldehyde
 enzyme conjugates, 90-91
Glyphosate
 phloem mobility, 113-14
Gnomonia, 300-1
 errabunda, 304
Gremmeniella, 302
Grape
 resveratrol
 formation, 440
 occurrence, 439-40
 stilbenes, 439, 453-54

H

Hansenula
 capsulata
 pinosylvin interaction, 451-52
 holotii, 451-52
Hayes, H. K., 127
Hemicolylchenchus spp.
 tillage effect, 178
Helixin, 39
Helmithosporium, 303, 321
 maydis
 appressoria formation
 stimulation, 242
 mucilage formation, 240
 spore germination
 variability effect, 172-73
 survival in corn residue, 169, 173
 sigoideum
 control, 117
 turcicum, 169
 victoriae
 host resistance gene, 136
Hemicellulase, 385
Hemileia vastatrix, 31
 uredospore germination
 stimulation, 72
Heterodera schachtii
 discovery, 25
 origin, 25-26
 survey, 26-27
Heterodera sp.
 lip adherence, 240
Holmes, F. O., 5
Hoplolaimus columbus
 subsoiling effect, 178-79
Horseradish peroxidase
 immunosorbent assays, 90
 substrates, 92
Host-pathogen genetics
 concept changes, 125-43
 host-parasite interactions, 133-35
 aegricorpus, 133-34
 quadratic checks, 133
 introduction, 125
 molecular genetics, 137-40
 Agrobacterium 137-38
 Erysiphe, 139
 phytoalexin genetics, 136-37
 principal concepts over past years
 disease resistance
 inheritance, 126-27
 gene-for-gene hypothesis, 128-29
 genetic variability within pathogen, 126-27
 genetics of microorganisms, 127

race origin, 217
vertical vs horizontal resistance, 130-33
summary, 140-41
Vb gene, 135-36

Hydrogen fluoride
crop yield reduction, 262
 SO₂ combination, 263
3-Hydroxy-5-methoxy stilbene
blue-stain fungi
 interaction, 452
tolerance, 442
Fomes interaction, 449-51
formation, 440
fungi
 enzyme inhibition, 442-43
 toxicity, 445
 toxicity loss, 443
ratio to pinosylvin, 441
Sirex-Amylostereum
 interaction, 451

p-Hydroxystilbene
 fungal toxicity, 445-46

I

Iatrogenic plant diseases, 69-82
definition, 69
effects on ecosystem, 70-74
 apricot dieback, 74-75
 berry disease of coffee, 75-78
 botrytis rot of cyclamen, 74
 coffee leaf rust, 75-76
effects on host plants, 70
defense mechanism change, 71-72
 host composition and structure changes, 70
 metabolite leakage, 71
groups, 69
plant pathologists response, 78-79

Imazalil
 structure, 119
Immunosorbent assays, 83-106
alternative procedures
 competition assays, 97-98
 indirect ELISA, 96-97
 modified ELISA, 97
analysis
 colorimetric procedure, 99
 quantitative investigations, 99-100
 visual diagnosis, 98
antigens, 92
 antisera and conjugate factors, 95
incubation conditions, 93
plate coating, 93-94
sample preparation, 92-93
sample selection, 92

specificity among virus serotypes, 94

technical considerations, 95

virus protein and subunit antibodies, 95-96

applications, 100-1

characteristics, 85, 87

conclusions, 101

development, 84

introduction, 83

principles, 84-85

procedure

- antiserum production, 88-89
- antiserum requirements, 88-92
- ELISA, 86
- enzyme choice and conjugation procedures, 89-91
- γ -globulin purification, 89
- solid phase, 87-88
- substrate, 91

standardization, 100

Indar (4-Butyl-4H-1,2,4-triazole)

wheat leaf rust

- application to control epidemic, 46
- control, 45-48
- spray campaign results, 46-48

Indole-3-acetic acid, 442

stilbenes and decarboxylation, 444

Iprodione, 117

Iron, 325-26

ISEM, 83

- detection, 85
- incubation conditions, 93-94
- principles, 85

4-Isopentenyl-resveratrol as phytoalexin, 453

Isoprothiolane, 117-18

structure, 118

J

Johnstone, Muriel Jessie, 31

Journal of Agronomic Education, 59

K

Keitt, G. W., 35-40

- administration, 39
- antibiotics, 38-39
- apple scab, 37-38
- first meeting, 35
- teaching, 40
- the man, 36

Kievitone, 201

Kineses

- definition, 238
- Klebahn, H., 31
- Klinokinesis**
- bacterial chemotaxis, 243
- definition, 238
- Koch's postulates
- disease diagnosis, 346-47
- Kunkel, L. O., 3, 5

L

Lablab bean

- disease resistance genetics, 192

Laccase

- stilbene degradation, 443

Lachnella, 302-3

Lentil

- pea seed-borne mosaic resistance genetics, 192

Leptosphaeria, 303

avenaria

- seedling disease, 285
- sporulation, 284

nodorum

- ascospore inoculum, 286-87
- infection and moisture, 288-89
- pycnidium formation, 288
- pycnidiospore infection, 287
- seed infection, 285
- survival, 283, 285
- weather influence, 289-91

salvinii

- control, 117

Lettuce

- downy mildew control, 115

Light

- difficulties in applying experimental data, 292

Drechslera

- conidium production, 278-79
- infection, 281-82

Mycosphaerella

- ascospore survival, 286
- pycnidium production, 289
- spore germination, 287

Septoria

- pycnidium formation, 288

Lignin, 385

Lima bean

- disease resistance genetics, 192

Liriomyza spp.

- virus transmission, 418

Loblolly pine

- fusiform rust, 353, 356, 362
- epidemic, 357-58
- factors contributing to epidemic, 358-59

incidence, 354

plantation management, 365

resistance, 357, 366

resistance provenances, 363

site preparation and incidence, 364

Longleaf pine, 356, 362

Loose smut of wheat

- host nutrient flow, 384
- infection cycle, 381-82

Lygus pratensis

- spinach blight virus transmission, 414

Lysine, 319

M

Macrosteles fascifrons

- oat blue dwarf virus multiplication, 413

Magnaporthe, 303

Magnesium

- solarized soils, 226

Maize chlorotic dwarf virus leafhopper transmission, 410

Maleic hydrazide

- disease proneness increase, 70

Mannitol, 384

Melampsora lini

- gene-for-gene hypothesis, 128-29

Meloidogyne incognita

- host resistance genetics, 192
- soil populations and plowing, 178
- subsoiling effect, 179

Meloidogyne spp.

- chemotaxis, 243
- host wall ingrowth induction, 320

Metalaixyl, 114-15

Methamidophos

- phloem transport, 113

Methyl 4-(2-aminophenyl)-5-thioallophanate, 110

1-Methyl pyridinium chloride, 112

Mexico

- see Wheat leaf rust epidemic in Mexico

Micratulus malleifer

- pseudo-curly-top disease transmission, 413

Milfuran, 115

Millet smut

- infection of ovaries, 381

Moisture effect

- Drechslera sporulation, 279-80

Mycosphaerella
 pycnidiospore
 infection, 287

Mycosphaerella spore
 dispersal, 286

Mycosphaerella
 sporulation, 283-84

Rhynchosporium, 275-76

Septoria infection, 288

Septoria leaf blights,
 289-91

lack
 damage to plant, 242-43

Leptosphaeria
 ascospore germination, 287

 foliar infection, 289-90

 infection, 208-89

 pycnidium formation, 288

 pycnidiospore infection,
 287

 spore dispersal, 285

 sporulation, 283

requirement
 Drechslera infection, 281

Monilia fructigena
 correct author citation,
 305-6

stilbene effect, 447

Monographella, 303

Mung bean
 disease resistance genetics,
 199

Mung bean yellow mosaic
 host resistance genetics, 199

Mycosphaerella
 citrullina
 continuous cropping effect,
 174

 graminicolae
 airborne ascospores, 286

 ascospore infection, 286-87

 pycnidium production, 289

 pycnidiospore infection,
 287

 sporulation, 283-84

 survival, 284

 weather influence, 291

kilianni
 disease development,
 378-79

pinodes
 host resistance genetics,
 197

N

Nakataea, 303

Namagon
 Sclerotinia rot increase, 72

Naphthalene acetic acid, 112,
 153-54

effect on Fusarium infection,
 71

Navy bean
 Fusarium root rot
 herbicide increase, 72

Nematodes
 tillage effects, 171

Nematicide diseases, dynamic
 action thresholds, 427-36

dynamic nature of
 thresholds, 430-33

 current growth function,
 431-32

 damage function, 432

 factors affecting
 nematode/plant
 growth, 431

 introduction, 427-28

 management decision
 process, 434-35

 flow chart, 434

microeconomic
 considerations in crop
 management, 429-30

pest population assessment
 and crop loss, 433-34

plant system as an integrator,
 428-29

 phenological stages and
 plant priorities, 428

stress factors effect on
 yield, 428

Nematode vectors of viruses
 see Virus vectors

Nematospora coryli
 transmission, 412

Nephrotettix virescens
 virus transmission, 410

Neurospora tetrapterma
 thermal death, 222

Nezara viridula
 disease transmission, 412

Nilaparvata lugens
 rice grassy stunt virus
 multiplication, 413

p-Nitrophenyl phosphate, 91

Norman, Zelda, 23

Nutrient movement in
 host-pathogen systems,
 309-31

 apoplast-symplast system,
 310-12

 conclusion, 324-26

 nutrient movement in
 apoplast, 324

introduction, 309-10

 terms, 310

nutrients movement in higher
 plants, 312-13

 long-distance transport,
 312

 medium-distance transport,
 312-13

 short-distance transport,
 313

nutrients available to
 pathogens

postinfection long-distance
 transport, 322-24

postinfection
 medium-distance
 transport, 321-22

postinfection short-distance
 transport, 314-21

prepenetration and
 penetration periods,
 313-14

O

Oak
 Cronartium
 host, 355-56

 rust incidence on pine,
 361, 365

 weather effect on infection,
 369

Oak blue dwarf virus
 multiplication in vector, 413

3'Octyloxycarboxin, 116

Olipodium brassicae
 access to host nutrients, 317

Oomycetes
 effective fungicides, 114

Ophiobolus, 301

Orobanche
 control by solarization, 217,
 226

 at edge of polyethylene
 mulch, 216

Orthokinesis
 definition, 238

Oxamyl, 109, 111-13

permeation half-life, 114

Oximecarbamates
 root uptake
 lipophilicity effect, 111

Oxycarboxin, 109

Ozone, 263
 effects on plant yields, 262
 measurement methods, 260
 yield reduction, 261

P

Pea
 disease increase
 herbicides, 72

 disease resistance genetics,
 196

fungus diseases, 197-98

virus diseases, 196-97

Pea enation mosaic virus
 host resistance genetics,
 196-97

transmission, 405-6

Pea leaf roll virus
 host resistance genetics, 196

Pea mosaic virus
host resistance genetics, 196

Pea seed-borne mosaic virus
host resistance genetics, 196

Pea streak
host resistance genetics, 197

Peanut
resveratrol, 453-54

Pearl millet
protoplast regeneration, 149

Pectinase, 443

Pectobacterium, 32

Penicillium
brevicompactum
antagonism to Botrytis, 74

quentauensis, 224

Peronospora
parasitica
susceptibility increase, 70

pepsi
host resistance genetics, 197

Peroxidase, 443
resveratrol dimerization, 454

Pestalosphaera, 303

Phacidium curvissii
ascospore maturation, 378

4'Phenylcarboxin, 116

o-Phenylen diamine, 92

Phloem
fungicide loading, 112

Phoma pusulans exigua var.
foveata
control, 117

Phosphorus, 326

Phylloachora
graminis
disease development, 377
host tissue dissolution, 373-74

lespedizae, 377
disease description, 375-76

ergot comparison, 375-76

inoculum, 375

Phylloachora spp.
host penetration
enzyme activity evidence, 386

peritheciun development, 386-87

Phyllosticta maydis
survival in corn residue, 169

Physoderma maydis
survival in corn residue, 169

Phytoalexins
criteria needed to implicate in resistance, 448-49

genetics, 136-37

stilbenes, 448-49

discussion, 454-55

other stilbene phytoalexins, 453-54

pine-Dendroctonus-stain
fungi-pinosylvin
interaction, 451-52

pine-Fomes-pinosylvin
interaction, 449-51

pine-Sirex-Amylosterum-pinosylvin interaction, 451

Phytonomas, 33

Phytopathology, 58-59, 63

Phytophthora
cinnamomi
control, 115
fungicide increase, 73
heat inactivation, 221-22

cryptogea
benomyl increase, 73

drechsleri f. sp. cajani
disease resistance genetics, 191

infestans
gene-for-gene hypothesis, 129
host electrolyte losses, 318-19

host metabolite
accumulation, 323

nutrient interception, 321

potato callus resistance, 159

potato protoplast derived clones, 151-52

megasperma
alfalfa resistance, 242

host callus tissue
resistance, 159

parasitica, 160

systemic fungicide control, 114

phaseoli
host resistance genetics, 192

Phytostilbenes role in disease resistance, 437-58

bioassay methods, 447-48

biological activity and metabolism
fungal metabolism, 442-44

range of biological activities, 442

structural requirements for antifungal activity, 445-47

biosynthesis, 440-42

conclusion, 455

introduction, 437

stilbene types and sources
glycosides, 439

heartwood stilbenes, 438-39

stress-induced stilbenes, 440

stilbenes as phytoalexins, 448

discussion, 454-55

miscellaneous stilbene phytoalexins, 453-54

pine-Dendroctonus-stain fungi-pinosylvin interaction, 451-52

pine-Fomes-pinosylvin interaction, 449-51

pine-Sirex-Amylosterum-pinosylvin interaction, 451

stilbenes chemical characteristics, 437-38

pinosylvin structure, 438

Pichia pini
pinosylvin interaction, 451

Picloram, 112-13
effect on roots, 71

Pierce's disease transmission, 412

Pisum
cinerium
sugar beet savoy virus transmission, 414

quadratum
beet leaf curl virus transmission, 414

Pigeon pea
disease resistance genetics, 191

Pine
see Phytostilbenes role in disease resistance

Pineapple wilt agent, 407

Pinosylvin
bioassay, 443

biosynthesis, 441

blue-stain fungus tolerance, 442

Dendroctonus-stain fungi interaction, 451-52

effect on fungi, 444, 453

Fomes interaction, 449-51

formation, 440

laccase degradation, 443

photosynthesis, inhibition, 442

ratio to 3-hydroxy-5-methoxy stilbene, 441

Sirex-Amylosterum interaction, 451

structure, 438

toxicity, 445-46

Fomes spore germination, 448

Piricularia oryzae
induced resistance, 145

Planococcoides njalensis
cacao swollen shoot virus vector, 409

Plant Disease, 58, 63
successor to Plant Disease Reporter, 59

Plant-disease diagnosis, 333-51
causal organism controversy, 338
synonyms, 338
conclusions, 348-49
diagnosis concept, 338-40
needed information, 339-40
disease definition and etiology concept, 334
Link's concept, 335-37
disease distribution patterns, 344-45
experience, 348
field examination, 340-44
factors affecting root growth, 342-43
mineral nutrition, 343-44
needed observations, 341
field testing, 347-48
introduction, 333-34
Koch's postulates, 346-47
laboratory examination, 345-36
pathogen definition, 337-38

Plantago mottle
host resistance genetics, 197

Plasmalemma, 406-7
haustoria effect, 319
nature, 312
pathogen solute uptake, 321

Plasmopodiophora brassicae
access to host nutrients, 317
apoplastic contact, 317
control by polarization, 218
host nutrient interception, 319
zoospore tropism, 240

Plum pox virus
immunosorbent assay
specificity, 94
soluble antigen, 96

Pod mottle
host resistance genetics, 193

Polyethylene
see Soilborne pest control by polarization

Polygalacturonase, 385

Polyscytalum
control, 117

Polystigma rubrum
disease development, 377-78

Ponderosa pine
sensitivity to air pollutants, 264

Poria placenta
pinosyvin effect, 444
stilbene effect, 446-47

Potato
protoplast regeneration, 149
disease resistance
variability, 151-53
preconditioning effect, 148
resistance selection, 159
tentoxin resistance, 157

Potato spindle tuber viroid
early discoveries, 12-15
isolation, 13
form, 14

Potato virus X
tobacco protoplasts
virulence variation, 161

Potato virus Y
soluble antigen, 96

Pratylenchus
thornei
control by polarization, 217
zeae
populations and plowing, 178

Procymidone, 117

Propamocarb, 114-15

Prothiocarb, 114

Protoplasts and disease
resistance, 145-66
conclusions, 161-62
genetic transformation, 158-59
DNA vector, 158
introduction, 145-46
mutant induction, 150-55
contributions to variability, 153-54
explanations of variability, 154-55
resistance inheritance, 150
resistance variability, 151-53

protoplasm fusion, 155-58
chromosome elimination, 156

protoplasm regeneration
component, 146-50
mitotic errors, 149
plant and tissue
conditioning, 147-48
protoplasm division, 147
protoplasm preparation, 146-47
regeneration from callus, 148-49

selection in culture, 159-61
sensitive cell elimination, 161

Pseudocercospora
herpotrichoides
chlorinequat chloride effect, 71

Pseudo-curl-top disease
transmission, 413

Pseudomonas, 32
glycinea
survival in plant debris, 171

lachrymans
chemotaxis, 243
medicaginis, 321
phaseolcola, 171
chemotaxis, 243
growth in host, 314
host resistance genetics, 195-96

solanacearum
avirulence and motility, 243

tabaci
tobacco protoplast
resistance, 159

Pseudoperonospora humuli
tropic response, 240

Pseudosclerotiora
herpotrichoides
minimal tillage effect, 169

Pterostilbene
as phytoalexin, 453-54
toxicity, 445

Puccinia
claytoniata
aecium initiation, 380
coronata
host resistance gene, 136
penetration reductions, 244

graminis
host mesophyll
displacement, 379
new races, 127
potential enzyme synthesis
in host, 385
resistance studies, 133
sexual incompatibility, 127
wax degradation lack, 241

graminis f. sp. tritici, 41
physiological race
concepts, 126-27

helianthi
appressorium formation
mistakes, 244

malvacarum
host-fungus composite
tissue, 380

recondita
tropic failures, 244
recondita f. sp. tritici, 41
epidemic in Mexico, 41-49

sorghii
appressorium formation
mistakes, 244
germ tube behavior, 246

striiformis, 131
Bayleton control, 46
host nutrient movement, 322

tritici
 apoplast feeding, 320

Pyrenophaeota
 lycopersici
 control by solarization, 217-18

terrestris
 control by solarization, 217

Pyrenophaeota
 trichostoma
 ecofallow effect, 172

tritici-repentis
 airborne spores, 280

ascocarp maturation, 277

diurnal sporulation, 279

moisture requirement for
 infection, 281

primary inoculum source, 276, 278

pseudothecia, 278

Pyroxychlor, 118

Pythium ultimum
 host resistance genetics, 194-195, 198

thermal death data, 222

Pythium spp.
 tillage effect, 170, 176-77
 soil populations, 178

zoospore taxes, 243

Q

Quintozene
 disease increase, 73

R

Ramulispore sorghi
 survival in plant residue, 169

Raymer, W. B., 5

Recollections, 1-19
 afterthoughts, 17-19
 introduction, 1-4
 plant vs animal diseases, 3
 multiparticle viruses, 8-12
 comoviruses, 9-10
 tobacco rattle virus, 10-12

mycoplasma-like organisms, 15-17

tobacco mosaic virus
 isolation, 5-8

viroids, 12-15

Red pine
 pinosylvin formation, 440

Resveratrol
 as phytoalexin, 453-54

Botrytis infections, 439
 formation, 440

spore germination inhibition, 442

toxicity, 445-46

Rhizoctonia solani
 control, 117
 solarization, 217, 231
 exception to tropic response, 239

heat sensitivity, 223

herbicide effect, 71-72

host resistance genetics, 192, 194-95

infection cushion formation
 stimulation, 314

inoculum potential reduction, 224-25

minimal tillage effect lack, 169

sequential cropping, 180

soil
 populations and tillage, 178
 reinfestation, 225
 tillage effect, 170-71, 176-77

tropic mistakes, 246, 249

Rhynchosporium secalis
 germ tube growth, 275

host cell permeability
 increase, 318-19

inoculum source, 273, 275

rain dispersal, 275

sporulation, 276

Rhytisma acerinum
 apothecia development, 378

Ribonuclease, 14

Rice
 disease control
 systemic fungicides, 117-18

Rice blast
 control, 117-18

Rice grassy stunt virus
 multiplication in vector, 413

Riker, A. J., 39

Rishbeth, John, 32

RNA, 17
 multiparticle viruses, 10-11

tobacco rattle virus, 10

 viroid, 14

Robbins, W. J., 5

Robertson, N. F., 32

Ryegrass mosaic virus
 transmission, 420

S

Saddleback looper
 fluoride interaction, 267

Sand pine, 356, 362

Schizophyllum commune
 genes, 127

Scleroderris, 302

Sclerotinia, 303-4
 sclerotiorum

sclerotia survival, 173

tillage effect, 170

tuberosa
 nomenclature, 306

Sclerotinia rot
 fungicide increase, 72

Sclerotium
 oryzae
 plowing effect, 177
 rolfsii
 control by solarization, 217-18
 sclerotia mortality, 213
 sublethal heating effect, 224
 tillage effect, 171, 176

Septoria
 nodorum
 chlormequat chloride
 effect, 71
 passerini
 spore germination and
 infection, 288
 survival, 285
 tritici, 284
 ecofallow effect, 172
 pycnidiospore spread, 286

Septoria sp.
 plant wax degradation, 241

Shortleaf pine, 356, 362

Sirex noctilio, 451

Sitobion avenae
 barley yellow dwarf virus
 transmission, 406

Slash pine
 fusiform rust, 353, 356, 362
 epidemic, 357-58
 factors contributing to
 epidemic, 358-59
 incidence, 354
 plantation management, 365
 resistance, 357, 366
 site preparation and
 incidence, 364

Snap bean
 disease increase
 herbicide effect, 72

Soft rot of wood, 386

Soilborne pest control by
 solarization, 211-36
 advantages and difficulties, 228-29

beneficial side effects
 increased growth response, 227-28

soil mites, 227

weed control, 226-27

conclusion, 232-33

disease control and yield
 increase, 217-18
 examples, 219

future prospects, 231-32

introduction, 211-12
 mechanisms of disease
 control, 218-20
 biological control, 223-26
 dry vs wet soil effect, 222
 thermal inactivation of
 pathogens, 220-23
 volatiles and other
 mechanisms, 226
 research lines, 229
 combination with other
 methods, 230-31
 continuous mulching, 230
 control of additional pests,
 230
 cost reduction, 229-30
 model systems, 231
 other uses, 230
 plastic technology, 231
 solar heating principles,
 212-17
 energy balance of soil, 216
 greenhouse effect, 213
 heating energy source,
 215-16
 model, 216
 predicted temperatures of
 soil, 215
 soil moisture maintenance,
 216-17
 steam heating comparison,
 213
 temperature reached,
 213-14
 thermal properties of soils,
 214

Sorghum downy mildew
 deep-plowing effect, 174
 tropic responses, 239

Southern bean mosaic
 host resistance genetics, 193

Southern bean mosaic virus
 transmission, 416

Sowbane mosaic virus
 transmission, 418

Soybean
 minimal tillage
 effect on diseases, 171
 protoplast preparation, 147

Spinach blight virus
 transmission, 414

Spiroplasma citri, 91

Spruce budworm
 fluoride interaction, 267

Stace-Smith, R., 5

Stanley, W. M., 5

Starch, 319

Starr, Mortimer P., 32

Stilbene
 toxicity to fungi, 445-46
 see also Phytostilbenes
 role in disease resistance

Strong, F. M., 39

Succinic acid dehydrogenase
 complex, 116

Sucrose, 112-13, 115, 311

Sugar beet
 crop rotations, 25
 protoplast regeneration,
 149

Sugar beet savoy virus
 transmission, 414

Sugar beet yellows virus
 soluble antigen, 96

Sugarcane
 callus regeneration
 phenotypic alterations,
 150-51
 regenerate variability,
 152-53

Sulfur dioxide
 damage to forests, 264
 estimation of pollution
 damage, 259-60
 fumigation effect, 262-63

Suture red spot, 262

Sweet potato
 protoplast preparation, 147

Symplast
 bacterial growth in plant,
 314

properties, 311

Synchitrium
 lagenarise
 high temperature
 resistance, 222
 trichosanthidis, 222

Systemic fungicides
 structural requirements, 107-24
 chemical requisites, 110
 lipophilicity effect, 110
 phloem loading, 112
 uptake, 111
 introduction, 107
 physiological requisites
 cuticular penetration, 109
 membrane permeability,
 108
 metabolic stability, 108
 selective toxicity, 108
 water solubility, 109-10
 summary, 121

systemic fungicides
 acylalanines, 114-15
 aliette, 115-16
 benzimidazoles, 116
 carboxamides, 116-17
 dicarboximides, 117
 isoprothiolane, 117-18
 toxic to Oomycetes, 114
 tritylazoles, 118-21
 terminology, 107-8
 toxophore, 107

T

Taphrina deformans
 intercellular growth, 318

Taxes
 see tropic and toxic responses
 of pathogens

Taxonomy and nomenclature
 changes, 297-307

Taxonomy and nomenclature
 changes, 297-307
 author citations changed
 Gibberella fujikuroi, 305
 Gibberella moniliformis,
 305

Monilia fructigena, 305-6

Sclerotinia tuberosa, 306

generic dispositions changed
 Apiognomonia from
 Gnomonia, 300-1
 Gaeumannomyces from
 Ophiobolus, 301
 Gerlachia from *Fusarium*,
 301-2
 Gremmeniella from
 Sclerotieris, 302
 Lachnellula or
 Trichoscyphella,
 302-3

Magnaporthe from
 Leptosphaeria, 303

Monographella from
 Calonectria, 303

Nakata from
 Helminthosporium,
 303

Pestalosphaeria from
 Leptosphaeria, 303

Sclerotinia and
 Whetzelinia, 303-4

generic names conserved,
 299-300

introduction, 297-299
 splitting vs lumping,
 298-99
 terms, 297-98

recommendations, 306

species names changed
 Apiognomonia veneta or
 Gnomonia errabunda,
 304

Fusarium kühnii or *F.*
 Dimerum, 304

Fusarium moniliforme or
 F. proliferatum, 304-5

Gloeoctinia granigena for
 G. temulentia, 305

Telone
 Sclerotinia rot increase, 72

Temperature
 Drechslera
 ascocarp maturation, 277

incubation period, 278
 infection, 281-82
 sporulation, 279-80
 effect on infection
 barley scald, 273, 275-76
Drechslera leaf blights, 276, 283
Mycosphaerella, 287, 290-91
 immunosorbent assays, 92
Leptosphaeria
 seed infection, 285
 spore germination, 287
 sporulation, 284
 Tentoxin, 157
Thiabendazole, 116
 Euypta control, 75
Thielaviopsis basicola
 control by solarization, 213
 thermal death data, 222-23
Thiophanate-methyl, 109-10, 116
 Thorne, Gerald, 21-28
 daily experiences, 24
 extension, 26-27
 graduate education, 27
 his philosophy, 23-24
 wives, 23
 legacy, 28
 nematode crop damage
 demonstration, 25-26
 nematode taxonomy, 24-25
 unusual strengths, 22-23
 Thorne, Gerald B., 23
 Thorne, Marion F., 23
 Tillage and multiple cropping
 effect on disease, 167-68
 conclusions, 182-83
 humid regions of temperate climates
 double cropping, 171-72
 monocropping, 169-71
 introduction, 167-69
 definitions, 168
 semiarid and arid regions of
 temperate climates
 ecofallow, 172
 other tillage practices, 172-73
 subtropical climates
 foliage pathogens, 173-76
 nematodes, 178-79
 sequential cropping, 173-75
 soilborne pathogens, 176-78
 tropical climates
 intercroppings, 180
 sequential cropping, 179-80

Tilletia caries
 bunt galls, 382
 Tissue replacement diseases, 373-89
 ascomycete diseases, 376-79
 conclusion, 387-88
 ergot and tar spot, 374-76
 introduction, 373
 organ replacement, 373
 types replacement diseases, 373-74
 oomycetes and chytridiomycetes
 physiology, 384
 degradative enzymes, 385-86
 host tissue invasion
 restriction, 386
 host tissue preference, 387
 nutrient translocation, 384
 rusts, 379-80
 smuts, 380-83
 Titus, E. G., 21, 25
 Tobacco
 protoplast regeneration
 potential, 149
 wildfire toxin resistance, 159
 Tobacco mosaic virus
 aphid vector, 407, 419
 callus barrier, 325
 Diptera transmission, 418
 indirect ELISA, 97
 isolation
 history, 5-8
 local lesion assay, 5
 mealbug vector, 407
 mechanical transmission, 419
 resistance
 host callus tissue, 159-60
 induced, 145
 sulfur accumulation, 321
 Tobacco rattle virus
 early studies, 10-12
 Tobacco ringspot virus
 host resistance genetics, 200
 Tobaviruses
 nematode vectors, 420
Tolyosporium penicillariae
 development in grain, 382
 Tomato
Alternaria susceptibility
 increase, 70
 protoplast regeneration
 preconditioning effect, 148
 TMV resistance, 159-60
 Tomato spotted wilt virus
 localization in host, 415
 transmission, 414-15
 Toximycin, 39
 Toxophore, 107
 Trehalose, 319, 384

Triadimenol, 109, 364
 structure, 119
 activity analysis, 120
 see also Bayleton
 Triadimenol, 120
 structure, 119
 Trialeurodes
 abutilonea
 virus vector, 409
 vaporariorum
 virus vector, 409
 Trichloroacetic acid
 effect on disease, 72
Trichoscyphella, 302-3
Trichoderma viride
 chloropicrin stimulation, 73
Trichoderma spp.
 heat resistance, 225
 increase after solarization, 224
 Triforine, 120
 structure, 119
3,5,4'-Trihydroxy-4-isopentenyl-stilbene, 440, 447
 Tritiazoles, 118-21
 structure, 119
 Tropic and toxic responses of
 pathogens, 237-55
 conclusions, 249-50
 introduction, 237
 definitions, 237-38
 mistakes, 244
 toxic failures, 247
 tropic failures, 244-47
 taxes, 242
 bacteria, 243
 nematodes, 243-44
 zoospores, 242-43
 tropic mistakes and
 resistance, 247-49
 rate-reducing resistances, 248
 tropism relationship to
 resistance types, 247
 tropisms, 238
 diversified fungal
 responses, 239
 environmental influences, 241
 nematode exploration, 240
 preinfection role in higher
 fungi, 238-29
 relationships affecting
 tropic responses, 240-42
 zoospore germination, 239-40
Turnip mosaic virus, 180
Turnip yellow mosaic virus, 8
 Tymovirus
 transmission, 415-16





CONTENTS

PREFATORY CHAPTER

Recollections and Reflections, *L. M. Black* 1

HISTORICAL PERSPECTIVES

Pioneer Leaders in Plant Pathology: Gerald Thorne, *K. R. Barker, E. Mae Noffsinger, and G. D. Griffin* 21

Pioneer Leaders in Plant Pathology: W. J. Dowson, *S. D. Garrett* 29

Pioneer Leaders in Plant Pathology: G. W. Keitt, *Curt Leben* 35

APPRAISAL OF PLANT DISEASE

Causes and Consequences of the 1976-1977 Wheat Leaf Rust Epidemic in Northwest Mexico, *H. J. Dubin and E. Torres* 41

The Science and Art of Plant-Disease Diagnosis, *R. G. Grogan* 333

Current Status and Management of Fusiform Rust on Southern Pines, *H. R. Powers Jr., R. A. Schmidt, and G. A. Snow* 353

PATHOGENS

Immunosorbent Assays in Plant Pathology, *M. F. Clark* 83

Dynamic Action Thresholds for Diseases Induced by Nematodes, *H. Ferris* 427

Arthropod and Nematode Vectors of Plant Viruses, *Kerry F. Harris* 391

Effects of Air Pollutants on Plant Productivity, *J. A. Laurence and L. H. Weinstein* 257

Changes in Taxonomy and Nomenclature of Important Genera of Plant Pathogens, *R. A. Shoemaker* 297

MORPHOLOGY AND ANATOMY

Tissue Replacement Diseases Caused by Fungi, *E. S. Luttrell* 373

PHYSIOLOGY OF HOST-PATHOGEN INTERACTION

Nutrient Movement in Host-Pathogen Systems, *J. G. Hancock and O. C. Huisman* 309

Role of Phytostilbenes in Decay and Disease Resistance, *John H. Hart* 437

GENETICS OF HOST-PATHOGEN INTERACTION	
<i>Changing Concepts in Host-Pathogen Genetics, Albert H. Ellingboe</i>	125
BREEDING FOR RESISTANCE	
<i>Genetics of Disease Resistance in Edible Legumes, Jack P. Meiners</i>	189
<i>Protoplasts as Sources of Disease Resistance in Plants, James F. Shepard</i>	145
EPIDEMIOLOGY AND INFLUENCE OF ENVIRONMENT	
<i>Effect of Environment on Fungal Leaf Blights of Small Grains, Gregory Shaner</i>	273
<i>Tropic and Toxic Responses of Pathogens to Plants, Willard K. Wynn</i>	237
ACTION OF TOXICANTS AND CHEMICAL CONTROL	
<i>Structural Requirements of Systemic Fungicides, L. V. Edgington</i>	107
<i>Iatrogenic Plant Diseases, Ellis Griffiths</i>	69
BIOLOGICAL AND CULTURAL CONTROL	
<i>Solar Heating (Solarization) of Soil for Control of Soilborne Pests, J. Katan</i>	211
<i>Effects of Reduced Tillage and Multiple Cropping on Plant Diseases, Donald R. Sumner, Ben Doupenik Jr., and M. G. Boosalis</i>	167
SPECIAL TOPICS	
<i>Extension: The Face of Plant Pathology, C. Wendell Horne</i>	51
INDEXES	
<i>Author Index</i>	459
<i>Subject Index</i>	472
<i>Cumulative Index of Contributing Authors, Volumes 10-19</i>	485
<i>Cumulative Index of Chapter Titles, Volumes 10-19</i>	488

